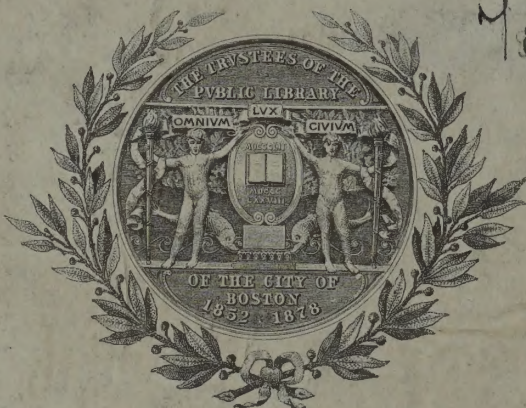


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ARGENTINE-CHILIAN BOUNDARY



A SHORT REPLY TO THE CHILIAN STATEMENT

PRESENTED TO THE TRIBUNAL APPOINTED BY HIS BRITANNIC
MAJESTY'S GOVERNMENT "TO CONSIDER AND REPORT UPON
THE DIFFERENCES WHICH HAVE ARISEN WITH
REGARD TO THE FRONTIER BETWEEN THE
ARGENTINE AND CHILIAN REPUBLICS"

TO

FURTHER JUSTIFY THE ARGENTINE CLAIMS FOR THE
BOUNDARY ALONG THE SUMMIT OF THE
CORDILLERA DE LOS ANDES
ACCORDING TO THE TREATIES OF 1881 & 1893

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Sylvester Baxter
Nov. 5. 1906

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LEGACIÓN DE LA REPÚBLICA ARGENTINA,

LONDON: *September* 20, 1902.

MY LORD,

GENTLEMEN,

I have the honour to present herewith, on behalf of the Argentine Government, a short statement, accompanying some further chartographic and photographic evidence, bearing upon the points in dispute with Chile regarding the frontier in the Cordillera de los Andes submitted to the arbitration of His Britannic Majesty's Government.

I have the honour to be, with the highest consideration,

My Lord and Gentlemen,

Your most obedient, humble servant,

(Signed) FLORENCIO L. DOMINGUEZ.

*To the Tribunal appointed to consider and report on the
boundary differences between Argentina and Chile.*

MY LORD,

GENTLEMEN,

When the Governments of the Argentine Republic and Chile, in May 1902, entered into the agreements relating to arbitration, limitation of armaments, and the actual marking out of the frontier line in that portion to be determined by His Britannic Majesty's Government, they expressed their desire to co-operate towards the speedy termination of the pending boundary dispute, and to facilitate the task of the Arbitrator, so that his award might be given during the present year. Meanwhile, the Argentine Republic was entitled—as recognised by the Tribunal—to reply to the last Statement of the Chilian Representative, and had accumulated for this purpose a mass of antecedents which would have confirmed her previous conclusions, making apparent at the same time the absolute lack of value to be attached to the said Statement in all its divers aspects. Nevertheless, as the British Government have given to the geographical side of the controversy the paramount importance which it in fact possesses, by the sending out to the ground of the technical Commission entrusted with its survey, the detailed analysis of the logomachy upon which the Chilian Representative based his interpretation of the treaties in force became utterly unnecessary, and the answer to his Statement could only be useful from a physiographical standpoint. The examination of the zone in which the divergences between the Experts arose—an examination persistently asked for by the Argentine Government—has satisfied their aspirations. They always understood that the Agreements had solved all the ancient disputes, and that the ocular survey of the ground had a primary bearing upon the final

demarcation of the frontier. In this connection it was stated to the Tribunal, on behalf of the Argentine Republic, on May 9, 1899 :—

“The points upon which Her Majesty’s Government have been requested to arbitrate are two :—

“1. The line in the Cordillera de los Andes from north to south as far as parallel 52° S. lat., in the points and stretches upon which the two Experts have disagreed.

“2. The line that should leave to Chile the coasts of the channels of the Pacific in the vicinity of parallels 52° in case the Cordillera penetrates into these channels.

“The Argentine Government are of opinion that, in order to consider the first point, it is necessary previously to obtain actual geographical information that may not give rise to discussions or doubts, and also to know in a positive way whether the proposed lines are in the Cordillera de los Andes, because the Arbitrator cannot take into consideration the lines submitted unless they refer to points situated within that Cordillera. My Government think, further, that to deal with the second point it is also absolutely necessary to start by having data equally sure about the situation of the Cordillera near parallel 52°, since there exists between the two Experts such fundamental discrepancy.

“After these investigations have been made the Argentine Government, if the occasion arises, will submit in detail the argument upon which they found their rights.”

An abundance of these arguments has already been placed in the hands of the Tribunal, but fresh data had been brought together which would have been put forward in order strictly to comply with the above-mentioned declarations, and to throw light on the innumerable errors contained in the Chilian Statement regarding the geographical facts, which, according to the Treaties, are the essence of the question. This being the state of things, the Argentine Government—as a consequence of the steps initiated by His Britannic Majesty’s Chargé d’Affaires at Buenos Aires—have decided to submit to the Tribunal only a very concise Statement, which has had to be prepared within a short

space of time, in order that the solution of the divergences between the Experts may be given at a date sufficiently early to allow of the actual demarcation being commenced during the next favourable season. In accordance with the above premises, this Note must, therefore, be restricted to a few general remarks upon the most salient points comprised in the Chilean Statement.

I.

The Chilean Representative ignores the importance of the Cordillera de los Andes as the necessary and unavoidable seat of the frontier-line, and states in this connection that "*the boundary can deviate from the Cordillera,*" and that "*the Cordillera is not paramount.*" (Ch. Stat. pp. 679 and 680.) In spite of this, the fact impossible to gainsay is that the boundary, from north to south, as far as parallel 52° S. lat., is constituted by the Cordillera de los Andes, along the summit of which Nature and history, geography and political considerations, have located the divisory line. In all the treaties, in all the documents, allusion is made to the same barrier, and proof is therein established that the respective sovereignties of the Argentine Republic on the one side and of Chile on the other reach to its summit.

From the earliest times of the discovery of America, after some acquaintance, perfunctory no doubt, with the lands incorporated into the Spanish Crown, caused it to be understood that the absurd administrative division by the "Capitulaciones" of 1534 could no longer prevail, and after the conquered provinces began to be settled and to acquire a character of their own, the Cordillera de los Andes, which formed "a formidable barrier between Chile and the eastern regions," according to Señor Barros Arana, served as the natural divisory wall of the monarch's southern possessions.

The Captains-General of Chile at first exercised jurisdiction over certain eastern zones which were enclosed within two single provinces, viz. that of Tucumán and that of Cuyo. "In 1563 Tucumán was detached from Chile, and

since then the Cordillera de los Andes continued as the eastern boundary of Chile in that section." (Ch. Stat. p. 197.) In 1776 Cuyo, which embraced all the remaining lands to the east of the Cordillera indirectly subject to the Chilian colonial officials, was added to the Viceroyalty of Río de la Plata as an integral part of it. Thenceforward Chile remained circumscribed within the territory which as a province had always belonged to her, and was bounded on the east by the "*Cordillera de la Nieve*," the "*Cordillera de Sierras, so rugged as to form an impassable barrier for the horses*" (Almagro); the "*very lofty snowy Cordillera*" (Cabildo de Santiago); the "*snow-covered Cordillera and mountain range, it being impossible to traverse it in many places*" (Luis Tribaldos de Toledo); the "*Cordillera Nevada, snow-covered during the entire year*" (Góngora Marmolejo); the "*famous Cordillera, only passable during six months of the year, and inaccessible during the remainder*" (Córdoba y Figueroa); the "*highest snow-covered Cordillera, forming a wall*" (Olavarría); the "*very lofty range of mountains which in that country our people call the great snow-covered Cordillera, which on the eastern side of all that kingdom constitutes an impregnable wall*" (González de Nájera); the "*great Cordillera Nevada*" (Lorenzo del Salto); the "*famous snow-covered Cordillera*" (Ovalle); the "*great Cordillera Nevada de los Andes*" (Rosales); the "*snow-covered Cordillera*" (Solórzano y Velasco); the "*famous Cordillera Nevada, 'a wall of such lofty dimensions*" (Lozano); the "*Cordillera Real de los Andes*" (Olivares); the "*Cordilleras Nevadas, which separate the Provinces of Paraguay and Chile*" (Sotomayor); the "*lofty snow-covered Cordillera*," the "*crest of the Cordillera*" (Pérez García); the "*snow-covered Cordillera*" (Villarreal); the "*Cordilleras which form an insurmountable barrier on the land side*" (Molina); the "*great Cordillera*" (Suárez de Figueroa); the "*great snowy Cordillera*" (Luis de Valdivia); etc.

These words, repeated by kings, local governors, geographers, historians and travellers, reveal the uniform idea of indicating as the boundary of the southern provinces of the Spanish possessions the greatest natural barrier existing between any two regions with a different sphere of action.

After 1810, when the two nations took their place in the international

community of Sovereign States, Chile conformed herself to the frontiers marked out by Nature, and to the territory constituting her patrimony as her heritage from Spain. Her earliest writers uniformly reproduced the colonial views. Henríquez described the boundary as a "*geographical truth presenting itself to the eye,*" Chile being "*shut in as within a wall, and separated from other peoples by a chain of very lofty mountains covered with eternal snow*"; the authors of the "Plan of Defence"—i.e. the Chilean statesmen, Egaña, Mackenna and Samaniego—spoke of the boundaries as the "*formidable barriers of the country*"; Rengifo emphasised the excellency of the "*eternal boundaries*" surrounding Chile; O'Higgins recognised that "*the great wall of the Cordillera de los Andes was the eastern frontier of his country as far as the Straits of Magellan*"; General Mackenna said that "*nature has given to Chile, in the majestic range of the Andes, a natural fortification which from its great extent is unique in the world*"; General Aldunate affirmed that Chile "*is enclosed on all sides by impregnable barriers.*" Therefore the work of Nature, recognised by the colonial functionaries, was invoked by the authors of the emancipation movement as the most secure bulwark for the development of the country.

The Chilean Parliament also acknowledged the Cordillera de los Andes as the eastern boundary when enacting the five Constitutions which have successively ruled the destinies of the nation. This is provided by the Constitution of 1822, promulgated by Don Bernardo O'Higgins, by that of 1823, promulgated by Don Ramón Freyre, by the bill of Don José Miguel Infante, by the Constitution of 1826, promulgated by Don Francisco Antonio Pinto, and by that of 1833, promulgated by Don Joaquín Prieto. The solemn Treaty of 1st July, 1846, by which Spain recognised the independence of her former province, likewise assigned the Cordillera de los Andes as the eastern boundary of the new-born Republic, in all its extension from north to south.

In the Law dividing the territory of Chile into eight provinces, in 1826, in the Decree relative to the creation of new Bishoprics, and in the Acts sanctioning those creations, in the Law upon Maritime "Gobernaciones," and in those which altered the divisions of the southern provinces, the legislator has always stated that the Cordillera de los Andes bounds Chile upon the east.

This is also laid down in the official Report of the Minister of the Interior, in 1847, in the Contract made with Pissis in 1849, in the Decree of 1853 respecting the Province of Valdivia, in the Law of 1861 respecting that of Llanquihue, in the complementary Decree of 1863, in the Law of 1869 respecting the Province of Arauco, in that of 1875, in that of 1879, and in many more relating to the administrative circumscriptions.

The official opinion of Chile having declared itself thus, historians and geographers expressed the same view. When referring to the eastern boundary, Gay alluded to "*those immense Cordilleras*"; Pissis to the "*anticlinal line of the Andean Cordillera*"; Domeyko to "*the immense Cordilleras*"; Asta Buruaga to "*the divisory line of the Andean slopes*"; Rosales to "*the summits or crests of the range*"; Vicuña Mackenna to "*the largest mountains of the Universe*"; Pérez Rosales to the "*culminating line of the Andes*"; Amunátegui to "*the gigantic Cordillera,*" "*the colossal bulwark with which God has protected our country,*" "*the stupendous natural barrier which God has fixed between the two countries,*" the "*colossal barrier which separates Chile from the Argentine Provinces*"; Matta to "*the real or ideal line of the summit of the Andes*"; and the Chilian Expert, Señor Barros Arana, to "*the culminating line of the Andes, where trees and bushes disappear, and on the highest ridges of which the snow never melts*"; to the Cordillera de los Andes "*constituting always a barrier between Chile and the Argentine Republic.*"

The very nature of the mountains, which all these writers accepted as a providential frontier, stamps the boundary with features so well defined that all human contentions are powerless to destroy it. To disregard the dictates of Nature and the teachings of history, and so repudiate the heritage of Spain, would be tantamount to the tracing of a frontier fraught with the greatest peril, which no agreement could avert, inasmuch as such would be a line *contra natura*. So anomalous would this result be that in order to attain it the Chilian Representative, ignoring the indisputable truth imposed by the reality of things, presents the hitherto unique spectacle of appearing before an international judge to disown the fundamental chart of his own country. (Ch. Stat. pp. 186 and foll.)

As a matter of fact, it cannot be a subject for controversy that the Cordillera de los Andes—a barrier of separation between two territories with differing spheres of activity—was accepted as frontier by a long succession of generations, even before it received the sanction of International Agreements. When once these Agreements were enforced, the dividing line could in no case swerve from this mass of high mountains. “*The boundary is the Cordillera de los Andes,*” so the Treaty of 1881 enacts in unequivocal terms. The summits which are to serve as a succession of landmarks for the political frontier must be, adds the same Treaty, summits belonging to the “*said Cordillera.*” The two nations retain their territorial sovereignty over all the regions outside the Cordillera, and whatever the disagreements between the parties may be, and whatever measures may be taken against them, the Cordillera de los Andes will ever rear itself as a dividing wall between both jurisdictions, because the Argentine Republic and Chile have so willed when they recorded in the Covenant which put an end to the old dispute, that the said boundary would ever remain “*immovable*” between the two countries (Art. 6).

The later agreements have ratified the same view. The Protocol of 1893 repeated that the Cordillera de los Andes constitutes the frontier (Art. 1). It declared, that “The Argentine Republic retains her dominion and sovereignty over all the territory that extends from the east *of the principal chain of the Andes* to the coast of the Atlantic” (Art. 2); it provided for the work of delimitation in the Cordillera de los Andes (Arts. 4 and 5), and in divers clauses described the natural orographical frontier. The Instructions of January 1, 1894, were imparted to the “Assistants who are to mark out the boundary line between the Argentine Republic and the Republic of Chile *in the Cordillera de los Andes,*” and directed, that the first work of those Assistants was to examine the said Cordillera de los Andes in order to seek therein the main chain of the Andes, and, thereafter, to carry out the secondary directions which it lays down (Art. 5).

The Resolution of November 20, 1894, concerns itself with the construction of cart roads as far as “*the divisory line of the Cordillera de los Andes.*” The Agreement of April 17, 1896, orders that the boundary-marking operations

"which are being carried out conformably with the Treaty of 1881 and Protocol of 1893, shall extend *in the Cordillera de los Andes* as far as parallel 23° S." (Art. 1), and indicated the Cordillera de los Andes as the only possible zone in which divergences between the Experts can arise (Art. 2). The Record of May 1, 1897, declares, that the new Sub-commissions created by this Record are to work "*in the Cordillera de los Andes.*" That of October 1, 1898, in recording that the definitive erection of certain landmarks is accepted, states, that they form part "of the boundary line *in the Cordillera de los Andes*, between the Argentine Republic and Chile." And it should be noted, that this Record is subsequent to the objection made by Señor Barros Arana to the employment of the words "Cordillera de los Andes" in the Minutes, an objection which the Government of Chile themselves overcame, as is shown in the Records of September 22 of the same year.

Not only is the Cordillera de los Andes the natural, traditional and agreed frontier, but the Arbitrator, when tracing the line of separation in the zone where divergences have occurred as far as parallel 52° S. lat., cannot swerve from the mountains forming that range.

The Treaty of 1881 stipulated arbitration in order to settle the difficulties which might arise between the two countries, whether by reason of the Treaty itself, or through any other cause, but it added: "The boundary established in the present arrangement to remain at all events immovable between the two republics"; and this "*immovable*" boundary was fixed in unmistakable terms in the first words of the same Treaty: "The boundary between the Argentine Republic and Chile from north to south as far as the parallel of latitude 52° *is the Cordillera de los Andes.*" Consequently, the powers of the Arbitrator remained confined to the mass of mountains and ice that has at all times served as a barrier. Within the same, difficulties might have arisen when studying with different criteria the details as to the course to be followed by the line constituting the political boundary, but under no pretext could the natural wall agreed upon be set aside, inasmuch as according to a provision binding alike the Governments and the possible Arbitrator, this wall must remain "*at all events immovable between the two Republics.*"

In 1896, it was agreed to designate the Government of Her Britannic Majesty as umpire, and the documents in the presence of which this Government expressed their acceptance of this mission (Agreement of April 17, 1896) emphatically directs that the divergences must be enclosed within the Cordillera de los Andes, and that the said divergences alone can, as far as the neighbourhood of parallel 52° S. lat., form the subject of arbitration. "*Should differences arise between the Experts,*" it states, "*when fixing in the Cordillera de los Andes the boundary marks south of parallel 26° 52' 45" S., and in case they could not be amicably settled by joint accord of both Governments, they shall be submitted to the decision of the Government of Her Britannic Majesty, whom the contracting parties from this moment appoint in the character of Arbitrator entrusted with the strict application in such cases of the provisions of the aforesaid Treaty and Protocol after the ground has been examined by a Commission appointed by the Arbitrator.*"

The views of the Experts respecting the definitive marking out of the line could have no application, therefore, outside the zone within which the "Gran Cadena Nevada" of historians, geographers and statesmen is circumscribed by two extensive longitudinal valleys. Within it, differences and the submission of the same to the Arbitrator's decision were possible; outside it, only lands wherein the nations interested had and have the right to exercise "full dominion and for perpetuity" were to be found. (Treaty of 1881, Art. 6.)

The Argentine Expert, after the meetings of August and September 1898, remarked that a portion of the line sketched out by his colleague diverged from the main chain of the Andes, up to the summit of which the Argentine Republic retains her sovereignty according to the Treaty of 1881 and the Protocol of 1893, and that another portion of it is outside the whole of said Cordillera de los Andes, and, consequently, outside the arbitration agreed upon. The Argentine Plenipotentiary brought this to the notice of the Chilian Minister for Foreign Affairs, and as, in such circumstances, it was not possible to have recourse to Her Britannic Majesty's Government, in order to obtain a settlement he invited the Chilian Government to reconsider some of the points proposed by Señor Barros Arana when they should have made a fresh survey in respect thereof,

and thus be enabled to ratify or rectify the Argentine Expert's statements. The Minister for Foreign Affairs of Chile replied that "the Chilian Expert had communicated to the Government that the points and stretches just mentioned by the Argentine Minister *are situated in the Cordillera de los Andes*, as ordered by the Treaties and in the form which they establish," and, therefore, considered as unnecessary the fresh surveys suggested by the said Plenipotentiary.

The negotiators understood, as may be seen, that there could be neither discussion nor arbitration upon landmarks proposed outside the Cordillera de los Andes, and they only decided to lay the differences before Her Britannic Majesty's Government when they found themselves face to face with two contradicting statements as to the real location of the landmarks to which objection was made. (Record of September 22, 1898.)

The Chilian Representative acknowledges that both Experts declared that the points where the lines differed "were situated *within* the Cordillera de los Andes" (Ch. Stat. p. xxii.), and by this he implicitly accepts the view that the capital boundary difficulty turns, in the first place, upon the determination of the lateral extension of that mountainous mass, and contradicts his own pretension as to the Cordillera not being paramount, and as to the possible deviation of the boundary from that Cordillera.

The Argentine Republic appeals to His Britannic Majesty's Government, confident that the statements of the Chilian functionaries are the outcome of sincere though mistaken conviction, confident that they conscientiously, though erroneously, assert, that the line which has been proposed is within the Treaties, since the Treaties order that it must be marked out within the Cordillera de los Andes, and that outside it there cannot exist differences allowing of arbitration. The Argentine Republic cannot accept that after such concrete assertions have been made, any doubt could be entertained as to the indisputable fact of the Cordillera de los Andes being the necessary seat of the boundary line. Neither can the Argentine Republic accept that after the Chilian Government have unmistakably proclaimed the said Cordillera to be the boundary ordered by the Treaties, it may be said in their name that the "Cordillera is not paramount," and that "the boundary can deviate from the Cordillera."

To sum up : recourse has not been had to arbitration in order to ascertain whether the Cordillera de los Andes, the boundary designated by Nature and by history, and recorded by Chile in her Constitutions, in her Laws, in her official documents, and in her international Treaties, does or does not separate jurisdictions each with its distinct sphere of activity and development ; the Arbitrator has been appealed to in order that he may determine which are the points of that geographical barrier through which the line constituting the political frontier is to run, in the section where the projects of the Experts do not agree. Therefore, it is beyond question that in spite of the affirmations to the contrary made by the Chilean Representative, the Cordillera de los Andes is the "paramount" feature of the demarcation, and that, if this had not been clearly stated in the Record of September 22, 1898, arbitration would not have been resorted to.

II.

The Representative of Chile upholds that the Treaties in force direct the marking out of the boundary to be made along the water-parting of the South American Continent. His words are : "The Government of Chile maintain that their Expert has demarcated the frontier line following the interoceanic divide, because they understood that it is so prescribed in the Treaties." (Ch. Stat. p. xiii.) If the Government of Chile held this view at any time before 1898, they never made it known to the Argentine Government, who, in no case, would have consented to the line being drawn outside the natural feature which must necessarily contain it. The foregoing pages prove, besides, that both countries always considered themselves as separated by the summit of the Cordillera de los Andes.

No document, ancient or modern, official or otherwise, worthy of the name, has ever stated that the continental divide may constitute the frontier between the Argentine Republic and Chile. Whenever consideration has been given to the boundary, attention has been fixed, as already said, upon the summit of the Cordillera de los Andes ; the rugged barrier of rock has taken the foremost

place in the general mind, without any claim having ever been made to substitute for it the unstable element of water. When allusion, in any shape, has been made to the divisory line, the political thought of every generation has been crystallised in the expressions of the leading historian of Chile, Don Diego Barros Arana :—the “*huge and massive Cordillera de los Andes,*” “*of inaccessible summits that lose themselves in the region of perpetual snows ;*” “*the bulky and steep Cordillera de los Andes stretching from north to south like a gigantic wall,*” and “*constituting always a barrier between Chile and the Argentine Republic,*” or, in the words of the Chilian Government themselves, set forth, on one of their disputes with their neighbours, with the energy peculiar to rooted convictions : “The eastern frontier of Chile has been and always will be *the highest crests of the Cordillera de los Andes.*” (Chilian Minister in Bolivia, Señor Lindsay, 1872.)

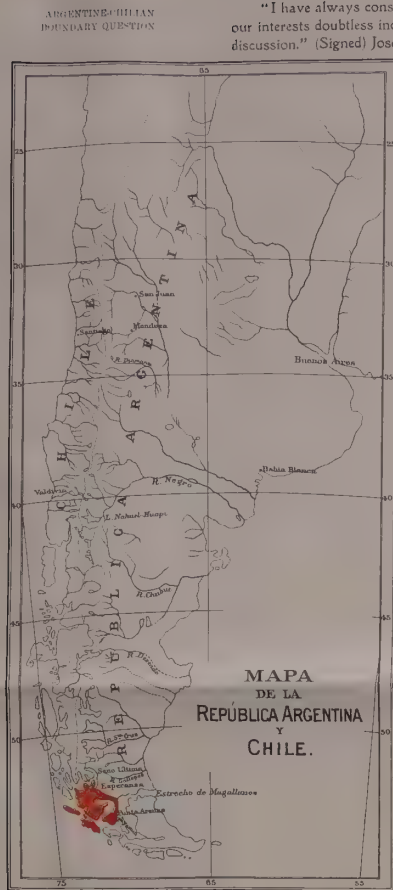
The Representative of Chile, in defence of a boundary never stipulated, seeks support in the defective linguistic interpretation of the second paragraph of Art. 1 of the Treaty of 1881, a task which he deems to be very easy because in order to accomplish it, he sets aside the first clause of the said article, a clause that overthrows the whole of his doctrines. The Treaty begins by designating *the Cordillera de los Andes* as the seat of the divisory line, and then proceeds to determine the points of that orographical mass through which said line is to pass. If the first part of the stipulation is ignored, and if the final detail of the demarcation is transformed into a sole and absolute rule with force to destroy whatever may be opposed to it, then it is no marvel if unexpected conclusions are made to follow. Amongst the attributions of the Tribunal is that of interpreting the Agreements ; doubts might arise as to the clearness of the terms in the clause which mentions “the most elevated crests *of said Cordillera*, that may divide the waters” ; such doubts might be easy to be explained owing to the state of the knowledge then possessed as to the relation, generally presumed, between the highest relief of a chain and its hydrographical system ; different interpretations might be given to the term “main chain of the Andes,” a main chain which, in any case, must be found within the “Cordillera de los Andes,” and is, therefore, not synonymous with the latter, either according to the Treaties, or to the Instructions of 1894 ; but that which can never be maintained, either by jurists

SUCCESSIVE CHILIAN PRETENSIONS.

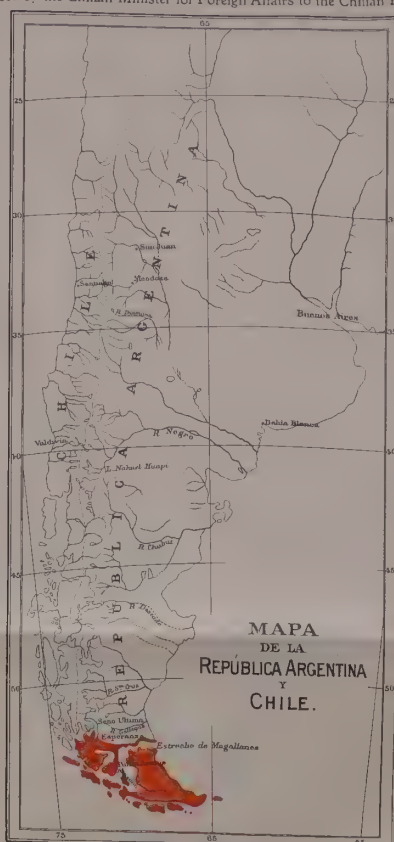
OFFICIAL STATEMENT AS TO THE CHILIAN INTERNATIONAL VIEWS.

"I have always considered that we must claim [all Patagonia] only to surely obtain the complete possession of the Straits. Our Geographical situation, and our interests doubtless indicate that we must not advance towards that side. But the question is already formulated and we must insist on it in the terms of the last discussion." (Signed) José Alfonso. [Letter addressed by the Chilean Minister for Foreign Affairs to the Chilean Plenipotentiary at Buenos Aires, Senor Barros Arana.]

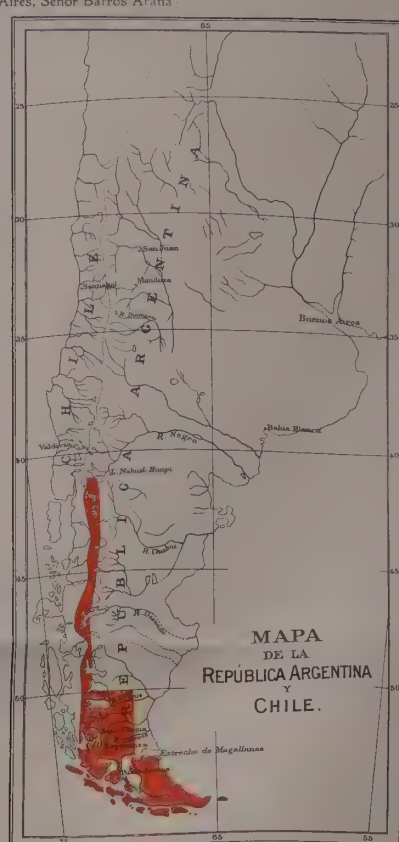
PLATE I.



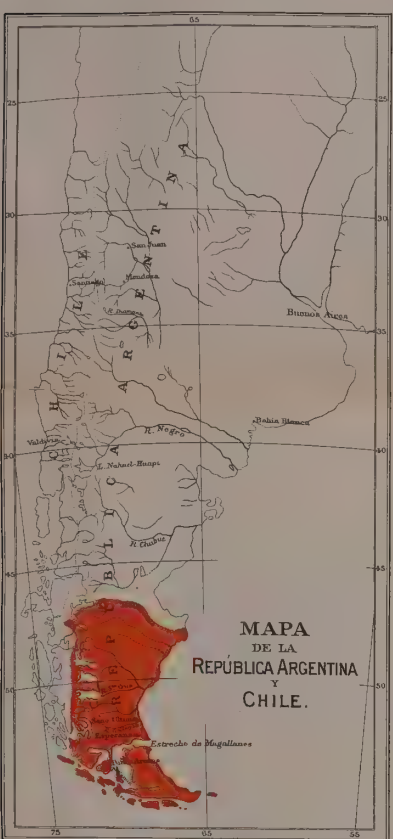
"The Cordillera de los Andes are defined as being the boundaries of Chilean territory on the east, and the Straits of Magellan belong to this country from said Cordillera as far as the western mouth. The other part belongs of course to the Argentine Confederation." (Report of the Chilean Commission formed by Señores Santiago Ibañez, Diego Antonio Barros and Domingo Espinosa.)



"The indisputable right which Chile has not only to the ground occupied by the colony recently established in Magallanes, but also to the whole of the Straits and to the adjacent and other lands which the said titles specify. (Note of the Chilean Minister for Foreign Affairs Señor Vial.)



"The division of the Straits of Magellan at Gregory Bay, leaving as territories adjacent to our colony (that of Punta Arenas) the area included within a line prolonged from that bay to parallel 50° S, but in a line north direction our boundary (that of Chile), to the north of 50° lat. S. running as far as the parallel of the Bay of Reloncavi, along the eastern base of the Andes." (Proposal of the Chilean Minister Señor Lastarria.)



"Chile could expect her right to the portion of that region included within the Straits itself, Tierra del Fuego, the adjacent islands and the coast of the Atlantic as far as Port Desierto to be recognised. From that point there might be drawn a line following the course of the river Desierto as far as the Cordillera de los Andes, so that that chain of mountains might be, in the Patagonian lands, the eastern boundary of Chile and the western boundary of the Argentine Republic." (Proposal of the Chilean Minister Señor Ibañez.)



"My Government (the Chilean) will agree that that division be determined by the parallel 45° S. lat. from the Atlantic to the already mentioned ranges of the Andes. In this manner the Argentine Republic would acquire the greater part of Patagonia, and Chile would have possession of the southern part as far as Cape Horn." (Proposal of the Chilean Minister Señor Ibañez.)



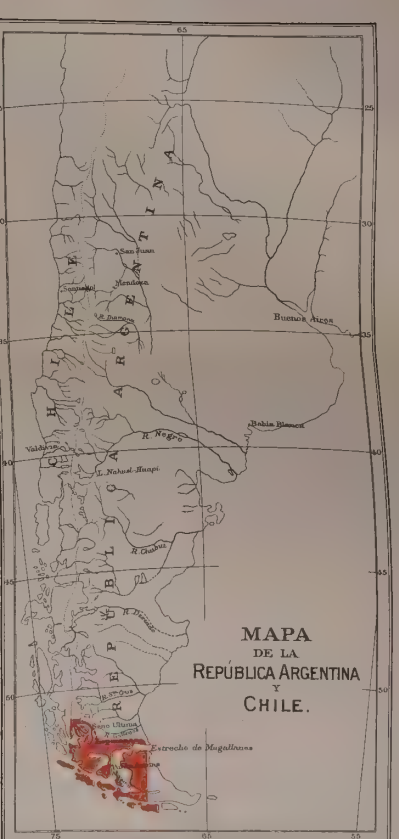
"The territory disputed between the two Republics is the one lying from the River Negro up to Cape Horn." (Note of the Chilean Minister Señor Ibañez.)



"The Diamante River is the southern boundary of the Province of Cuyo." "There has been no contradiction on my part in assigning the rivers Diamante and Negro as the southern boundary of the Argentine Republic, in the Provinces of Cuyo and Buenos Aires respectively." (Note of the Chilean Minister Señor Ibañez.)



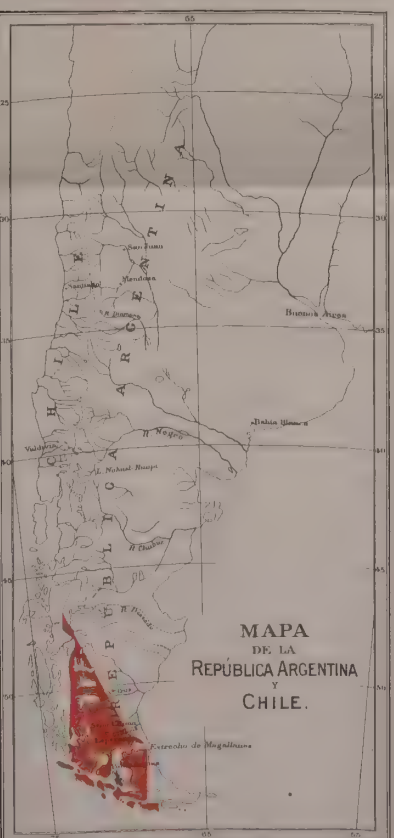
ART I OF THE TREATY. "The boundary between the Argentine Republic and Chile from north to south as far as the parallel of latitude 52° S is the Cordillera de los Andes." ART II. "In the southern part of the continent, the boundary shall be a line, which starting from Mount Duenas shall be prolonged overland as far as Mount Duenas thence it shall continue westward, following the highest elevations of the chain of hills existing there until it strikes the height of Mount Aymond. From this point the line shall be prolonged up to the intersection of meridian 70° W. with parallel 52° S. and thence it shall continue westward coinciding with this latter parallel as far as the divortia aquarum of the Andes." ART III. "In Tierra del Fuego a line shall be traced which starting from the point named Cape Vespertino South in latitude 52° 40' S. shall be prolonged southward coinciding with meridian 66° 34' W. of Greenwich, until it strikes Beagle Channel."



ART II OF THE PROTOCOL. "If in the Peninsular part of the south, on meeting parallel 52° S. the Cordillera should be found penetrating into the channel of the Pacific there existing, the experts shall undertake the study of the ground in order to fix a boundary line leaving to Chile the coasts of said channels."



"The Governments agree to adopt as the divisory boundary between parallels 46° and 52° S. L. a straight line coinciding throughout its whole length with the meridian 70° West of Greenwich." (Proposal of the Chilean Minister Señor Guerrero.)



"The Argentine Republic recognises the possession by Chile of, and her absolute authority over, the coasts of the said inlets (those of the Pacific 1896) and the rivers lying between both Republics starting from the parallel of 17° S. Montevideo, until it finishes at Mount Aymond, shall be marked out on the ground, so as to ensure to Chile her ownership of the said coasts."



"The boundary line that he proposes runs along all the highest crests of the Andes which divide the waters, and constantly separates the springs of the rivers which belong to either country; that the same line leaves within the territory of each of the two nations the peaks, ridges or ranges, however elevated they may be which do not divide the waters of the river systems belonging to each country; natural, and effective dividing line of the waters of the South American Continent between parallels 50° 12' 40' and 52°." (Statement by Señor Barros Arana. Record of August 29, 1898.)

or geographers, is that when, by good fortune, a natural line of political separation within a formidable barrier has been stipulated, it can be possible to ignore the common sense that consecrated it, in order to claim to transport the line by a mere juggling with words, into regions where everything contributes to annihilate the valuable advantages that counselled and imposed its adoption.

The boundary is the crest of the Cordillera de los Andes. Nature has so ordered it, tradition has confirmed it, and the Agreements have prescribed it, giving expression to the supreme will of the two countries. For both, consequently, the watershed of the Andes, sometimes alluded to, was synonymous with the summit of the Cordillera de los Andes; for both it was a fact that the range and its watershed were cut, not only by rivers flowing from the eastern slope or from the plains to the Pacific Ocean, but by inlets and channels, such as the Straits of Magellan, as was proved by the explorations of Ladrillero, García, Skyring and Kirke, Cox, Frick, Vidal Gormaz, Simpson, Musters, Rogers, Ibar and Moreno.

The summit of the Cordillera de los Andes and its own watershed, according to the ideas of the time, continued to be the dividing barrier, without a thought on the part of any one of abandoning the same in order to attribute importance to the uncertain origin of the rivers that cut it.

The lengthy negotiations pursued between the Argentine Republic and Chile, from the moment when the latter occupied Puerto del Hambre (1843), in the Straits of Magellan, and in a region outside of her domain, prove that the continental divide was never regarded, in plain terms, as a frontier line. The sketches in Plate I. show the unfolding of the controversy from its commencement until it was submitted to British arbitration. The Argentine Republic contended, with conspicuous uniformity, that the *Cordillera Nevada* was her western boundary along the whole extent of her territory. Chile, on her side, accepted this boundary in the northern and central regions, but endeavoured to pass beyond it in the southern zone, so as to reach as far as the Atlantic Ocean. With this purpose in view, she declared herself the owner, on one occasion, of the lands bordering the Straits; on another, she sought to extend herself as far as

the river Deseado; later on she put forward claims as far as parallel 45° S. lat., and stated at times that the whole of Patagonia up to river Negro, and even to river Diamante, was hers. The continental divide was never mentioned in an explicit manner.

The Treaty of 1881 put an end to the old dispute when it designated the frontier in the Cordillera de los Andes, as far as parallel 52° S. lat. When the Treaty had been signed Chile continued her policy of encroachment, and chiefly for the purpose of avoiding disputes, and of once more ratifying the traditional barrier, the Argentine Republic ceded to her, in 1893, the coasts of Last Hope Inlet. This new arrangement had hardly been concluded when fresh attempts were made to advance beyond the Andean wall. The Chilian Plenipotentiary, Señor Guerrero, expressed the wish to annex to his country the zone situated between the crest of the Cordillera and the meridian of 72° W. of Greenwich, and between parallels 46° and 52° S. lat. The Minister, Señor Morla Vicuña, sought means to incorporate into Chile the south-western triangle of Patagonia, by tracing a line for that purpose from the point where the parallel of Tres Montes intersects the main chain of the Andes as far as Mount Aymond. Both these schemes having been repudiated there appeared the doctrine of the continental divide, which would incorporate into Chile eastern valleys populated and brought to civilisation by the sole and persevering efforts of the Argentine Republic.

If, during the protracted diplomatic discussion between both countries, nothing is to be found in support of a frontier formed by the interoceanic divide, there exist, on the other hand, data for affirming that, according to South American international jurisprudence, when allusion was made to the watershed of the Cordillera de los Andes, its highest orographical relief was referred to. In 1874, Chile concluded a Treaty with Bolivia, the first Article of which provides: "The parallel of 24° S. lat. from the sea to the Cordillera de los Andes in the *divortium aquarum* is the boundary between the Republic of Chile and Bolivia."

The sentence "Cordillera de los Andes in the *divortium aquarum*" gave rise

to official declarations which were considered necessary for the acceptance of the Treaty, and Chile on that occasion affirmed that by that expression was meant "*the most elevated crests of the Cordillera, AND NOTHING ELSE,*" and grounded her conclusions upon "*the authority of science, of language, and of common sense.*" (Chilian Minister, Señor Walker Martinez, 1874.)

This view was repeated later on by the Chilian Ministers in their negotiations with the Argentine Republic. In January 1877 an understanding was arrived at respecting a draft agreement, one of the clauses of which—the 6th—ran thus: "From 50° S. lat. the boundary between the two countries to the north shall be the *summits of the Cordillera de los Andes*, whether fixed in the most culminating parts or in the line of the watershed." Señor Barros Arana, who is responsible for this phrase, thereby declared that whether the boundary was fixed "*in the most culminating parts, or in the line of the watershed,*" the result would always be the same as regards the general seat of the frontier: in one case, as in the other, the "boundary should be the *summits of the Cordillera de los Andes.*" The Chilian Minister for Foreign Affairs opposed the designation of parallel 50° S. lat. as the terminal point of the orographical line, but adhered to the principle of demarcation, and gave his representative clear instructions, in which he told him: "The only thing that could be agreed to in this respect is, that whenever the Andes divide the territories of the two Republics, *the loftiest crests of the Cordillera should be considered the line of demarcation between them.*" These were, as has been said, the ideas of that time, which supported the view of the supposed coincidence of the water-parting with the high profile of the mountains. The words of the Chilian Ministers reduced the hydrographical element to a secondary place, and gave the first, as has always been the case, to the barrier of rock and snow.

Complying with these instructions, as he was bound to do, and, as according to his own declarations, he did, Señor Barros Arana drew up the draft agreement in these terms: "The Republic of Chile is separated from the Argentine Republic by the Cordillera de los Andes, the dividing line running along its highest points, passing between the sources on the slopes that descend on one side and the other." This terminology, therefore, interpreted the

Chilian view, according to which "the loftiest crests of the Cordilleras should be considered the line of demarcation between both countries," and it is this terminology—clearer in some respects—which was reproduced in the fundamental Treaty of 1881.

The same Congress of Chile which approved this Covenant, and the President of the Republic who sanctioned it, gave an identical import to its wording when issuing the Laws and Decrees as to the division of the internal circumscriptions of the country. The Law of January 14, 1884, the Decree of November 3, 1885, that of November 30, 1885, that of December 2, 1885, and that of December 6, 1888, allude to the eastern boundary of Chile, and locate it in "*the anticlinal line of the Andes*," in "*the crest of the Cordillera de los Andes*," in "*the crest of the Andes*," in "*the summit of the Cordillera*," in "*the summit of the Cordillera de los Andes*," in "*the culminating line of the Andes*," in "*the culminating line of the Cordillera de los Andes*," etc.

This is not a question of the opinion of an individual, the weight of which depends upon the importance of the one who maintains it; it is a question of the opinion of the Chilian authorities, of those who intervened in the frontier dispute, of those who negotiated the Covenant of 1881, of those who discussed and sanctioned it.

On January 18, 1892, the Chilian Expert began setting forth doctrines which altered the formula consecrated by Nature, tradition and the Treaties, but his declarations were not then categorical, and in the note addressed by him to his colleague, the Argentine Expert Señor Pico, he did not confine himself to mentioning the mere hydrographical feature, but he also alluded, in explicit terms, to the "*central ridge*" of the Cordillera de los Andes as the seat of the frontier. Nevertheless, the difficulties caused by him gave rise to the Protocol of 1893, which, at the same time that it ratified the orographical view, repudiated the line along the continental divide. This is shown in the clauses in which it is provided that each of the nations *retains*, or continues to possess, the territories on the east or west of the Andes, divided by its main chain, the snowy ridge, the barrier, the wall, always visible and practically

impassable over most of its extent. It enacted, besides, that each country is entitled to all lands and waters—to wit: lakes, lagoons, rivers and parts of rivers, streams, slopes, etc.—situated on the respective side of the main chain of the Andes, the line along its summit thus crossing over the water-gaps as it crosses over the wind-gaps. In Art. VI., the demarcation is ordered to be made in the mountains, and the location of landmarks giving visible existence to the boundary is to be effected in “each pass or accessible point” of such mountains. At that moment it was a well-known fact to both parties that in some places where the continental divide occurs there were neither passes nor accessible mountainous points at all, inasmuch as the mountains, without which those passes and accessible points can have no existence, were lacking, extensive plains taking their place. In short, the Protocol re-asserted the orographical conception of the divisory wall, and rejected the theory of the continental divide by declaring that the frontier line might cut watercourses and leave “parts of rivers” in either country; by interpreting the first clause of the Treaty of 1881, and providing that Argentine sovereignty on the one side, and Chilian on the other, extended up to the summit of the “main chain of the Andes”; by admitting the possibility of the seat of the frontier being found penetrating into the inlets of only one of the oceans; by ordering boundary marks to be planted one on each “pass or accessible point of the mountains”; and, finally, by declaring that the survey of the visible course of the rivers, when descending into the neighbouring plains, is not “actually necessary” in the demarcation of the frontier.

The two Experts, when once the difficulties that gave rise to the Protocol of 1893 had been settled, drew up on January 1, 1894, the Instructions by which the work of the assistant engineers was to be guided. Art. 5, the clearness of which cannot be surpassed, makes apparent, once again, which is the watershed referred to by the Agreements, and proves that it cannot be sought for outside the main chain of the Andes, nay more, outside the Cordillera. It runs thus: “It having been provided in Art. 1 of the Protocol of May 1 that the Experts and the Sub-Commissions *which are to operate in the Cordillera de los Andes* shall have as an invariable rule of their proceedings the principle estab-

lished in the first part of Art. 1 of the Treaty of 1881, said Sub-Commissions shall investigate *the situation in said Cordillera of the main chain of the Andes* in order to seek *in same* the most elevated crests that may divide the waters, and shall mark the frontier-line on their accessible parts, making it pass between the *slopes** which descend one side and the other." That is to say, the Experts and the Sub-Commissions had to operate in the Cordillera de los Andes, and never outside it. The first thing was to seek the Cordillera with the object of investigating *therein* the situation of the "main chain of the Andes," and only when once the Cordillera and the main chain were located "its most elevated crests that may divide the waters" were to be sought for in order to carry out the actual demarcation. Whatever the exact meaning of this last phrase may be, the clearness of the paramount view expressed in the Article cannot be surpassed, viz. that of the orographical feature being the primary guide in delimiting the frontier.

So decisive is the importance of these directions, as a contradiction of the theory of the continental divide, that Señor Barros Arana (Argentine Evidence, p. 372) tried to suppress the first part when drafting a Minute in which were to be recorded the points where his proposed line coincided with that projected by the Argentine Expert, Dr. Moreno. By omitting the first part of the clause transcribed, there were suppressed "*the Cordillera de los Andes,*" its "*main chain,*" and its "*most elevated crests,*" and there only remained as a guide for the assistants the watershed, which, if the orographical features were thus set aside, could be sought both within the Cordillera de los Andes and outside it.

All the subsequent agreements contain clauses relative to the mass of mountains which constitutes the barrier, and in none of them direct or indirect mention is made of the continental divide, the advantage of which as a dividing barrier it would be impossible to compare with the mass of rock and snow reared by Nature to the west of the Argentine Republic and to the east of Chile.

* It would be superfluous and inopportune to enter into detailed explanations as to the precise meaning of the word "*vertientes*." It suffices to recall that the former Chilean Expert, Señor Barros Arana, gave its scientific definition, previous to the signature of said Covenant, in the following terms: "The slopes (*costados*) of the mountains down which the waters flow are called '*vertientes*'"; and that the present Expert, Señor Bertrand, affirmed subsequently to the signature of the Covenant—as if it were not possible to entertain the least doubt as to the import of the word—that "*vertientes*" mean slopes (*laderas*).

The incidental allusion to the watershed is, therefore, to be explained by the ancient current idea that the highest relief must needs coincide with the division of the waters of the mountain chosen as boundary. That this was the general view—the orographic line sketched out by the declivities down which the waters run—is evidenced by all the other frontiers to be found in analogous conditions. The general slope (“versant”) defined by the highest profile always belongs to the country, province, or department commanded by it, without its having been necessary, on that account, invariably to carry the borders through the precise points, impossible to be fixed, of the inconstant source of the water-courses. An example of this is to be seen in the boundary in the Carpathian or Transylvanian Alps, which follows the culminating crest of the chain and its watershed, cuts, nevertheless, the head-streams where they are unimportant in relation to the said crest, and crosses, in its prolongation, the river Aluta, which in piercing the mountains receives the waters of its two slopes, as is the case with some of the Patagonian rivers.

In the centre of the Himalayan mountains there exists “a magnificent natural watershed (or water-parting) which stretches from Kashmir to Northern Assam,” but this watershed is crossed by rivers which, having their source “in its northern flanks, buttresses and spurs, pass northwards and turn to the plains of India.” It has been said that nothing is better than this magnificent array of snow and ice to serve as the unmistakable barrier between two vast Asiatic countries; and nevertheless, this is not the continental divide, nor the divide between India and the table-land of Thibet. In the same way, standing east of Patagonia in the Cordillera de los Andes, there is a magnificent central watershed, cut by rivers that flow down its eastern flanks, buttresses and spurs, and turn to the west towards the Pacific. Nothing is better than this magnificent array of unapproachable snow and ice to serve as the unmistakable barrier between two South American countries, and neither is this the continental divide, nor the water-parting between the Patagonian table-land and the territories stretching to the west of it.

The Argentine Expert, in his proposed frontier, has thus incorporated the

spirit of the Treaties and the conviction of both peoples ; he has proposed to erect the landmarks along the Cordillera, along what he considered to be the general summit of the Andes, i.e. its main chain, following the watershed of this summit, and without taking into account the peaks—even though they may be loftier—which are to be found isolated on one side or the other ; he has respected the “ *central ridge* ” of the Chilian Expert, the “ *ligne de faite* ” of the Cordillera, and when he has found rivers that pierce the latter, he has passed over them, always seeking the orographical profiles. By proceeding in this manner he has moulded his theories upon the features imposed by Nature, has adhered to the teachings of history, and has complied with the provisions of the Treaties.

The Chilian doctrine is the opposite one. When the great snowy chain of the Cordillera, nay, when the whole of its mass of mountains and that of the subsidiary branches, are to the west of the continental divide, the line incorporates these regions into Chile, and passes through “ swamps,” “ pampas ” and “ feet of tablelands,” where not even a vestige of the traditional barrier exists. The ground shows that the continental divide sometimes occurs in the Patagonian plains in places where, owing to the difficulty of recognising and exactly locating it, conflicts of jurisdiction would become incessant. “ A boundary,” nevertheless, “ should not require a process of discovery ; it should stand unmistakable, a solid and substantial warning to all who approach it.”

The basis of the continental divide would frustrate the aims which both countries had in view when framing the Treaty of 1881, aims to which the Chilian negotiator, Señor Valderrama, gave expression in these words : “ The Argentine Republic, so advantageously situated, looks towards the Atlantic ; there she will fulfil the high mission which belongs to her, while Chile fulfils hers on the shores of the Pacific. *The two have different spheres of action, different lines of activity, and like parallel lines, they cannot and must not come into collision.* ” With the continental divide as basis, there would no longer exist, as a dividing wall, the “ perpetual,” “ immovable ” and “ gigantic Cordillera ” of which the chief of the Chilian Cabinet spoke in 1899 ; “ *the formidable barriers which Nature has placed between the two Republics,* ” to which the Chilian Plenipotentiary in Argentina, Señor de Putrón, alluded ; “ the line of intersection of the general

plans, eastern and western, in the Andes, *as the main chain of the Andes*," mentioned by the Chilian Minister in Buenos Aires, Señor Morla Vicuña; the Andes, "*immense mass of snow and granite*," "*majestic and almost impassable barrier* to the armies which, thwarting the designs of God and the manifest indications of the destiny of the peoples, might attempt to scale it with conquest and ambition in view," described by Señor Altamirano, Chilian Delegate at the Conference of Buenos Aires, 1899; "*the Cordillera*," the "*summit of the Andes*," whence descends the wind that "*vivifies and fertilises the narrow valleys of the Chilian mountains*," and the one that "*refreshes the immense savannah of the Argentine Pampas*," to which, in 1898, the Mayor of Santiago de Chile made reference.

III.

The Chilian Statement insinuates the idea, that in the southern region, the Cordillera de los Andes does not bear out its character as such, is "*merely constructive*," and cannot serve as a seat for the frontier line.

These affirmations clash with elementary physiography. Nature does not exhibit her features with mathematical precision, but, nevertheless, the difference between the theoretical conception and the actual facts is not so wide as to render them antagonistic, and, therefore, as to prevent the marking out of the boundary in the manner provided by the Treaties. The Cordillera de los Andes, throughout the whole length separating the two countries, is continuous in its immensity. Within it exists the central mass, generally impracticable, and its passage is barely feasible through some narrow defiles or water-gaps, which do not break the continuity of the chains which constitute that Cordillera. Within it the ideal "*main chain of the Andes*," the high "*cordón central de la Cordillera*," of the Chilian Expert and geographers is to be found. Within it exists the boundary according to tradition as well as to the Treaties, uniting in itself the most considerable general altitude, and the greatest volume of water flowing from the summit.

Nature cannot be compelled to modify her work in order to suit human

interpretations and doctrines; it is the duty of man to find the means to make his interests harmonise with the conditions of the physical features, from which he deduces them; and this it is that has been done by the Argentine Expert in planning the boundary.

The Cordillera de los Andes, taken as a whole, contains features analogous to those presented by other great mountain ranges. In it, as in these ranges, a general direction predominates, followed by the various cordons; in it, as in other mountain ranges, the phenomena that have given it its relief, have fashioned the latter, by carving it into shapes which, taken singly, would seem opposed to the physiognomy of the general mass; in it, as in other ranges, science, nevertheless, discovers its true character, without allowing itself to be confused by insignificant details.

The Cordillera de los Andes exists, without doubt, in the southern region; and, in proof of this, it suffices to bear in mind the geographical documents placed in the hands of the Tribunal. Let parallel $38^{\circ} 30'$ S. lat., for example, be chosen as a starting point. Between the latter and the river Huahum, $40^{\circ} 5' 3''$ S. lat., for a stretch of 187 kilom. (113 miles) the Cordillera offers none of those water-gaps which, according to the Chilian Representative, contribute to its disappearance; but he nevertheless finds sufficient cause in this torrent, which pierces several ridges of the range, to suppose that the latter loses its characteristics, and to imagine that the head-streams of the waters must needs be the seat of the mountain in the passes and accessible points of which the landmarks are to be erected, according to the Protocol of 1893 and the Instructions of 1894. Neither does the great orographical mass between parallels $40^{\circ} 5' 3''$ and $41^{\circ} 30' 2''$ S. lat. (155 kilom., or 96 miles) present any breach, but it is enough—always according to the Chilian Representative—that the river Manso pierces it, and carries to the Pacific the waters of the Pre-Cordillera and of the whole eastern slope of that section of the Cordillera de los Andes, to give rise to the insinuation that this range does not exist as such.

The same thing occurs respecting the snowy cordon—the axis of the Cordillera—which runs between the river Manso and the water-gap of the river Puelo ($42^{\circ} 3' 5''$ S. lat.) for a length of 60 kilom. (37 miles); neither,

continuing southwards, do the 144 kilom. (89 miles) of snowy mountains extending as far as the gorge of the river Fetaleufu ($43^{\circ} 21' 4''$ S. lat.) constitute any Andean barrier in the eyes of the Chilian Representative. On the other hand, the main chain of the Andes is considered by him to be the Pampa of Cholila, where Dr. Krüger—who explored the region by order of the Chilian Government—declares, under his signature, that the continental divide occurs to the east of the Cordillera. From the river Fetaleufu to the water-gap of the Carrenleufu ($43^{\circ} 43' 4''$ S. lat.) the distance is inconsiderable (40 kilom., or 25 miles), but the mountain mass is colossal. Between the river Carrenleufu and the water-gap of the river Pico ($44^{\circ} 12' 4''$ S. lat.), over a length of 55 kilom. (34 miles), the difficulties which the ruggedness and the snows of the mountains have offered to explorers are sufficient witness that there also the Cordillera de los Andes rears itself with its proper characteristics. In fact, no man has yet crossed the mountains right through in that part of the range except by the river valleys. Doctor Steffen, who followed the Upper Palena, or Carrenleufu river, has related in vivid terms the hindrances which he met with; and when reaching the eastern region, to the west of the continental divide, he alludes to the “*offshoots of the central Cordillera massif now lying behind us.*” The like obstacle, more accentuated if possible, continues as far as the water-gap of the river Cisnes ($44^{\circ} 50' 9''$ S. lat.) for a length of 56 kilom. (35 miles), from the latter to the river Aysen ($45^{\circ} 23' 7''$ S. lat.) for some 80 kilom. (50 miles), and thence to the outflow of Lake Elizalde ($45^{\circ} 45'$ S. lat.). The inaccessibility and rugged wildness of the long stretch of Cordillera (200 kilom., 124 miles), extending between the river Huemules and the water-gap of the river Las Heras ($47^{\circ} 35'$ S. lat.), and thence to the southern extremity of the orographical boundary at Mount Geikie, are well known, without its being possible to say that the simple fact of the waters from the eastern slopes of the mountains flowing into the Pacific through the water-gaps of the rivers Las Heras, Toro ($48^{\circ} 15'$ S. lat.) and Serrano ($51^{\circ} 16' 2''$) is a reason to cause it to lose its characteristics, and to treat as naught a range showing the imposing snow-capped masses of San Valentín (4058 m.; 13,314 ft.), Arenales (3437 m.; 11,277 ft.), Pirámides (3380 m.; 11,090 ft.), Agassiz (3170 m.; 10,400 ft.), FitzRoy (3370 m.; 11,057 ft.), etc.

Between Calén and Last Hope Inlets the range unfolds itself over a space covering nearly four degrees of latitude,—compact, united, without water-gaps. A length of $1\frac{1}{2}$ degrees of the central part of this section has been recognised as the international boundary, and as “*Cordillera de los Andes*,” according to the words of the Chilian Expert, as set forth in the Record of October 1, 1898. Nevertheless, in its extensions northwards and southwards, which are at least as rugged as the accepted portion, the Cordillera, as such, does not exist in the opinion of the Chilian Representative, because the waters of the eastern slope flow down into the Pacific through the water-gaps which occur at its extremities. This is equivalent to saying that the range of the Himalaya is not a true range by reason of its being pierced by rivers rising in the tableland of Thibet. Had the crest of this huge range been agreed upon as a boundary, and had the waters divided by it been taken into account, the line would never have been removed from the mountains in order to be carried to the tableland of Thibet. All the geographers affirm that the head-streams of the Indus and the Brahmaputra are to be found “to the north of the great chain of the Himalayas,” “to the back of the Himalayas,” and it has occurred to no one that the “main chain” is located in the spot where those head-streams occur, i.e. outside the Himalayas. No one has given preference to the springs over the white and eternal landmarks that denote the highest relief of the world. Neither could any geographer consider that the eternal and white landmarks that denote the highest relief of the Cordillera de los Andes and which, according to the Chilian explorers, detach themselves far to the west of the continental divide, are features of secondary importance merely because through a few gorges,—so many breaches in its enormous mass,—there flow towards the Pacific, streams originated in regions where only attentive and close observation can discover the occurrence of the interoceanic water-parting, and from whence it is sometimes difficult to distinguish in the far west the snowy line of the Cordillera.

All maps of Chile, all works of her geographers—to begin with those of the Expert, Señor Barros Arana—demonstrate that there does really and positively rise in her territory the “Cordillera de la Costa”; that in its highest edge a watershed is produced, utilised on more than one occasion as a boundary line,

and that this Cordillera is frequently pierced—more frequently than that of the Andes in the zones submitted to arbitration—by rivers which apparently cut it into separate blocks, of which the whole constitutes the real chain, enclosed between the central valley of Chile on the east, and the Pacific Ocean on the west.

Now, if with a map of both Americas in hand, comparison is made between the geographical conditions of their two extremities—Alaska and Patagonia—it will be found that there is a striking resemblance between the two. The same mass of snowy mountains ; the same fjords penetrating them ; to the west the sea ; to the east lakes that fill gorges or deep fjord-like valleys ; a similar geological and orographical constitution ; deep clefts that carve out the contour into shapes of extraordinary likeness in regions so far apart ; huge glaciers which block the valleys or conceal level openings ; big rivers and torrents that rush down, some from the summit of the chain, and others which open themselves a passage through, and carry into the Pacific the water not only from both its slopes but from lands lying far to the east. If search be made amongst the works of the geographers, geologists and statesmen who have studied Alaska and British Columbia, it will be found that the mountain chain does not lose its characteristics because the river Fraser,—comparable to the Las Heras in the south,—the Skeena,—a brother of the Aysen,—the Stikinna,—analogous to the Palena,—the Taku and the Altseek,—i.e. the Patagonian Fetaleufu and Puelo,—pierce it through.

All those who allude to the waters flowing eastward to swell the volume of the rivers that pierce the range, mean that these waters flow down the eastern slope, and consider that the said range has a general summit which is “continuous and persistent,” over a greater length than the section of the Cordillera de los Andes forming the subject of dispute, although it is cut not only by the rivers mentioned, but also by enormous fjords. Is there any ground for contradicting the Canadian geographers, geologists and statesmen when they affirm that the Cascade Range has a real existence, and that the ensemble of its crests forms the summit, albeit certain indentations of the western shore pierce its base and give access to the waters of various rivers ?

It is said, that in the southern region, the Cordillera de los Andes loses its dominant characteristic of direction, that it is a chaos of ridges and spurs; but no one who has ever seen, if only for a few moments, the imposing contour of its snows, can deny what is so palpably proved to him, i.e. the admirable grouping of its masses, and the existence of the great depression that fixes the boundary of its base, in its longitudinal trend, and separates it from the subsidiary ranges. Maps, photographs, and the very works of the Chilian explorers, with which the Tribunal is acquainted, constitute, besides, the most absolute negation of the theories of the Chilian Representative in this respect.

The truth is that the Cordillera de los Andes is endowed with every feature that gives it its physiognomy as a great mountain range, albeit several Patagonian rivers empty themselves into the Pacific through its gorges, as is the case with similar rivers rising in Alaska and British Columbia. There is in the Cordillera de los Andes an assemblage of lofty points forming a culminating and continuous summit,—leaving aside minute exceptions which are insignificant when compared with the enormity of the whole,—which is the orographical line of separation between the slopes down which pour “the greater volume of the waters,” which is “generally impassable or difficult to cross,” and which incarnates the ideal snowy line lauded as an international frontier by the most enlightened statesmen of both countries.

It would be useless, as well as tedious, to multiply quotations, but it is not superfluous to recall, on account of its special importance in this case, such an authority as that of the Delegates to the Buenos Aires Conference in 1899, who were five of the most eminent men in Chile. They claimed to trace the frontier in the Puna de Atacama, along the ridge of Incahuasi, cut, as is well known, by the rivers Burras and Patos, and on this occasion they stated: “If the Records had only established that the dividing line ought to be traced in the Cordillera de los Andes, the line in the eastern cordon of Incahuasi would be correct, as this cordon is a part of the said Cordillera, *and combines the conditions of height, continuity of elevated summits, and division of waters contemplated in the Treaties.*”

The Cordillera de los Andes, therefore, has an existence as such according to the official view of Chile, even in the case of its presenting a few water-gaps, which do not interrupt its general continuity any more than it is interrupted by the wind-gaps which occur in it.

Moreover, the terminology of the Agreements embodies the prevailing conception in both countries as to what is to be understood by "Cordillera de los Andes," and by "main chain of the Andes." When the discussion of the Treaties of 1881 and 1893 took place, the negotiators were cognisant of the course of the rivers Bío-Bío, Huahum, Puelo, Palena and Aysen, at least; and this shows that no question ever arose as to the existence of the Cordillera on account of its being cut by those watercourses. Respecting its "main chain," due weight was given to the views current in the Argentine Republic and Chile, expressed, especially, by the most popularly consulted work of the time—the *Jeografía Física* of Señor Barros Arana—in which is to be read: "The main chain of a group or system of mountains is considered to be the chain, the slopes and sides of which shed the greatest quantity of waters which feed great rivers." These views are those followed by the Chilean Delegates to the Conference of Buenos Aires, in the above-mentioned words, which, as has been seen, contain the same ideas applied in the southern region by the Argentine Expert, and consequently repudiate the Chilean Expert's theory of the continental divide.

IV.

In view of the foregoing statements, the Argentine Government make it a duty to declare to the Tribunal that, after taking cognisance of the argument of the Chilean Representative, they maintain in their entirety the views set forth in the "Argentine Evidence" respecting both the frontier line proposals submitted to arbitration.

(a) SAN FRANCISCO (Argentine landmarks 1 and 2; Chilean landmarks 1 to 9).—The Argentine Expert, Dr. Moreno, proposed that the boundary line

should be prolonged from the Pass of Pirca de Indios, situated to the south of the Juncal or Wheelwright Volcano, as far as Mount Cenizo, belonging to the block of Tres Cruces, a superb mass nearly 23,000 feet in altitude, "*the high peaks of which,*" according to the Chilian surveyor Señor San Román, "*coincide with the true and only Cordillera de los Andes, from whence the direct prolongation of the Cordillera is visible towards the north,*" and where, according also to Señor San Román, "*the real chain is single and unquestionable.*"

The Chilian Expert, Señor Barros Arana, makes the Pass of San Francisco the starting point of his line, this pass, as well as the mount of the same name, being outside "the true and only Cordillera de los Andes." This is recognised by Señor Bertrand when mentioning Mount San Francisco amongst those which rise "*to the east of the Andean cordon,*" and by Señor San Román when he states that, "*the Pass of San Francisco, where the disputed landmark was placed, is very far out of the highest edge of the Andes.*"

Besides, the divergences that had arisen as to the demarcation of the boundary from 23° to 26° 52' 45" S. lat. having been definitely settled—a settlement which recognises Argentine dominion as far as the Cordillera de los Andes properly so-called—the removal of the provisional landmark erroneously placed at the San Francisco Gap becomes a matter of course. Señor San Román, referring to this point, says: "In any case, the public opinion of both nations may rest on the assurance that the possession of the San Francisco Gap is of no importance, either by reason of the actual value of the territories which it embraces, or by reason of its strategic conditions. Its value as a point of the frontier is for either country of no importance, except in relation to "the definitive nationality of the important territories mentioned in the truce arranged between Chile and Bolivia, and which are under Chilian possession and dominion, and while time glides away, by consolidating the present situation, or by preparing its final solution, nothing may disturb the now existing stable equilibrium. When such solution is arrived at, then in accordance with its conclusions *the San Francisco landmark would or would not be removed to a point further west.*"

(b) LAKE LACAR (Argentine landmarks 267 to 274; Chilian landmarks 257 to 262).—The subjoined Map, No. XVII., complementary to No. III., serves to indicate the general direction, north and south, of the Argentine line traced along the summit of the Cordillera de los Andes, in compliance with the Treaties. It shows once more the inconsistency of the Chilian theories, and throws a light upon the excellent conditions of the zone in which the frontier has been definitively marked out, conditions identical in all their parts with those found in the northern prolongation.

This line, however, has been rejected by the Chilian Expert simply because one of the many saddles of the chain has been excavated in such a manner as to give passage westward to the waters originating on the opposite slope, and in the now dried-up bed of the former lake of Chimehuin. A mere glance at the Chilian project, planned in accordance with the continental *divortia aquarum* theory, verifies the slenderness of the grounds upon which it is sought to divert the line proposed by the Argentine Expert from its logical and natural course. And what can be the value of a doctrine according to which a wind-gap, at whatever altitude it may occur, does not alter the physiognomy of the chain, but when such a gap sinks low enough to allow of the passage of an insignificant stream this simple fact suffices to form a solution of continuity in the whole mass?

The Chilian Representative supposes that there is no case of a boundary traced along a "main ridge" analogous to that of the Argentine line in the part in which it descends from Mount Perihueico, cuts the river Huahum, ascends the stream Mahihuen, and again reaches the axis of the chain, so as to follow its general direction. The limits of this Note forbid the entrance upon a detailed statement of the various examples that might be quoted, but, as a matter of fact, a single one is enough to deal with that insinuation, and to prove the accuracy of Dr. Moreno's views as to what should be understood by the summit of a "main ridge."

In the southern Appalachian Mountains the Blue Ridge carries the main divortium between the Atlantic Ocean and the Gulf of Mexico; the Unaka

Range divides in its summit its own waters, and is cut through by the streams rising in the Blue Ridge and emptying into the Gulf. From an orographical standpoint the Unaka Range is higher, more rugged, and its continuity is not interrupted by the water-gaps which are to be found in it. For these reasons it has been selected as the dividing wall between Tennessee and North Carolina.

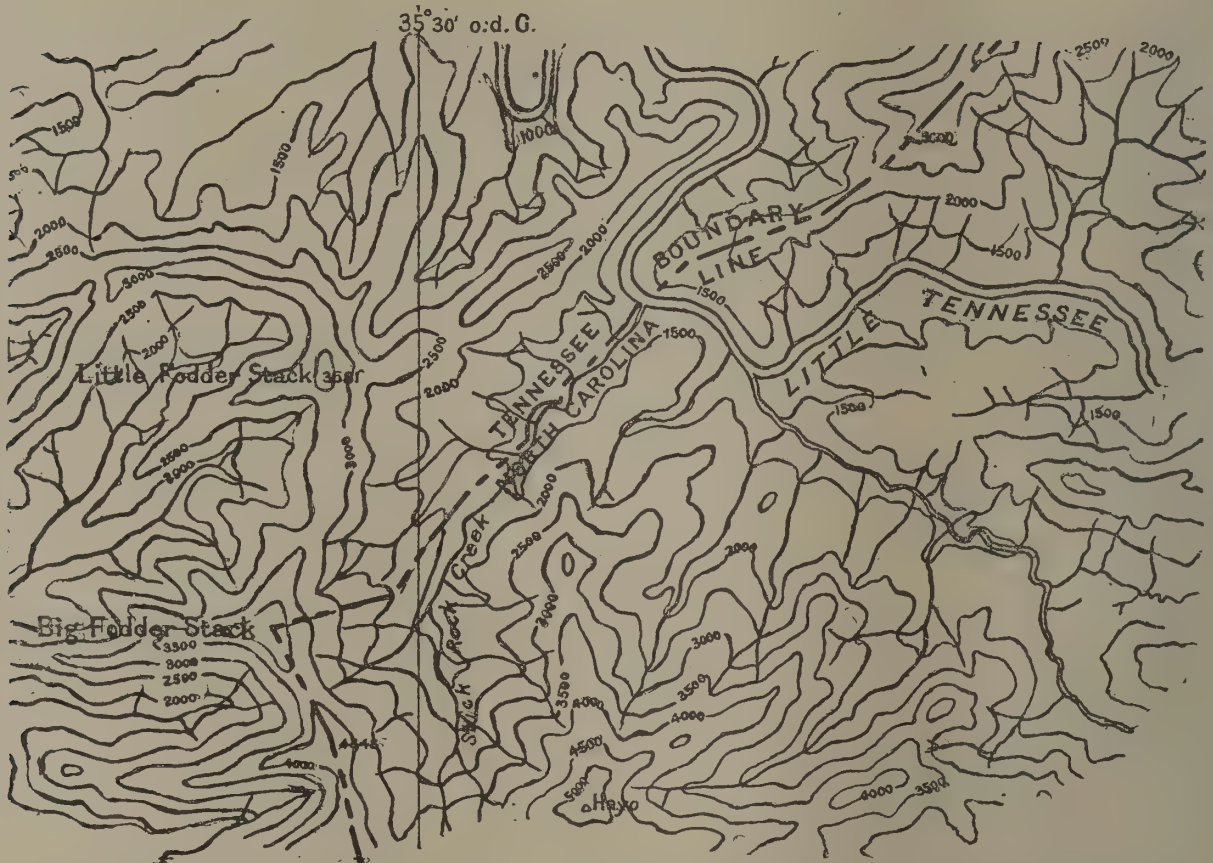


FIG. 1.—CUTTING OF THE RIVER LITTLE TENNESSEE BY THE BOUNDARY LINE BETWEEN TENNESSEE AND NORTH CAROLINA.

The documents defining this frontier (Supreme Court of the United States, October Term, 1893, No. 3, Original, p. 71) state, that from the Painted Rock, on French Broad River, the line shall follow “along *the highest ridge* of the said mountains to the place where it is called the Great Iron or Smoky Mountain, thence along *the extreme height* of the said mountain to the place where it is called Unicory or Unaka Mountain, between the Indian towns of Cowee and Old Chota; thence along the *main ridge* of the said mountain to the southern

boundary of North Carolina" (from $35^{\circ} 56' 20''$ N. lat. and $82^{\circ} 53' 40''$ long. W. of Greenwich to $34^{\circ} 59' 20''$ N. lat. and $84^{\circ} 19' 30''$ long. W.).

The line traced, according to these injunctions, along the "*highest ridge*," "*the extreme height*," and "*the main ridge*" of the Unaka Range leaves on one side

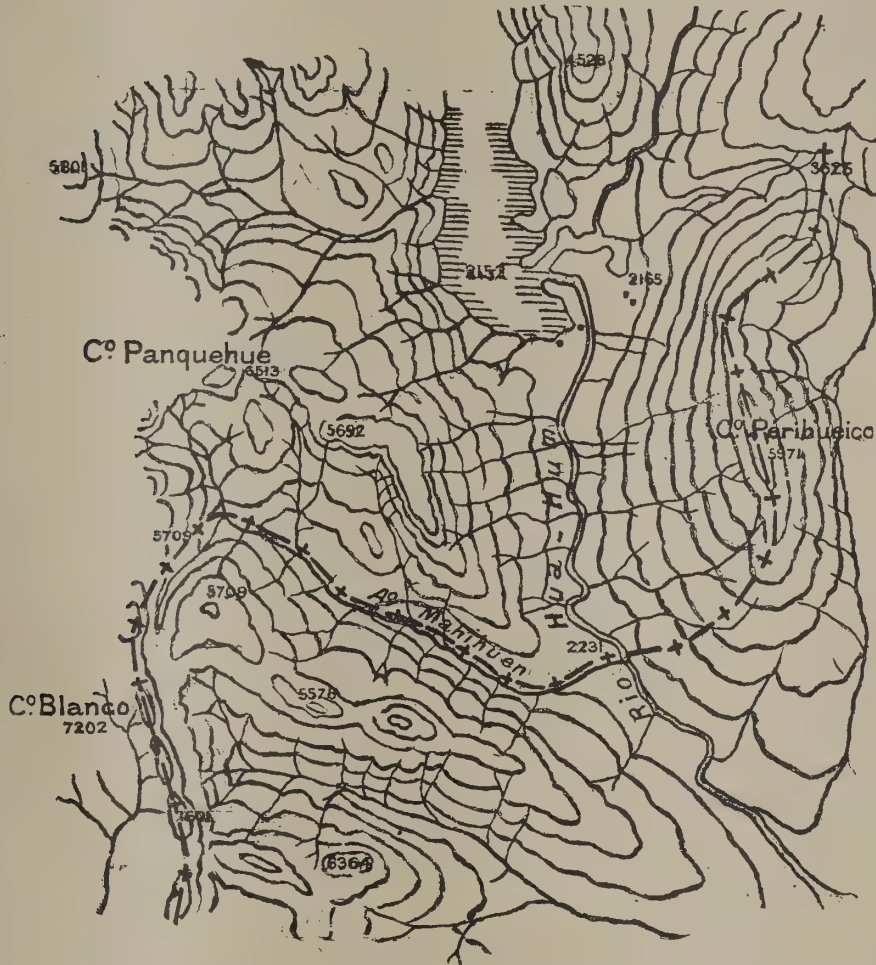


FIG. 2.—CUTTING OF THE RIVER HUAHUM BY THE PROJECTED ARGENTINE BOUNDARY LINE.

and the other altitudes which are higher, but detached, and divides the waters of the summit, but crosses the streams which pierce through the Unakas. It has been marked out, therefore, similarly to the line proposed by the Argentine Expert.

The Little Tennessee stream is crossed at $35^{\circ} 27' 30''$ N. lat. and $83^{\circ} 57' 30''$ W. long., and presents striking analogies with the cutting of the

Huahum river by the Argentine line. In the former this cutting takes place in the confluence of the Little Tennessee with the Slick Rock Creek; in the latter, in the confluence of the Huahum with the Mahihuén: in the former the line, after traversing the Little Tennessee, is prolonged along the course of the Slick Rock Creek upwards, until it arrives at the summit of the “*main ridge*” in Big Fodder Stack (4300 ft.); in the latter, the line of the Expert Dr. Moreno, after cutting the Huahum, where it receives the waters of the Mahihuén, follows “along this stream up to the summit of the centre marked 1800 (268) in the

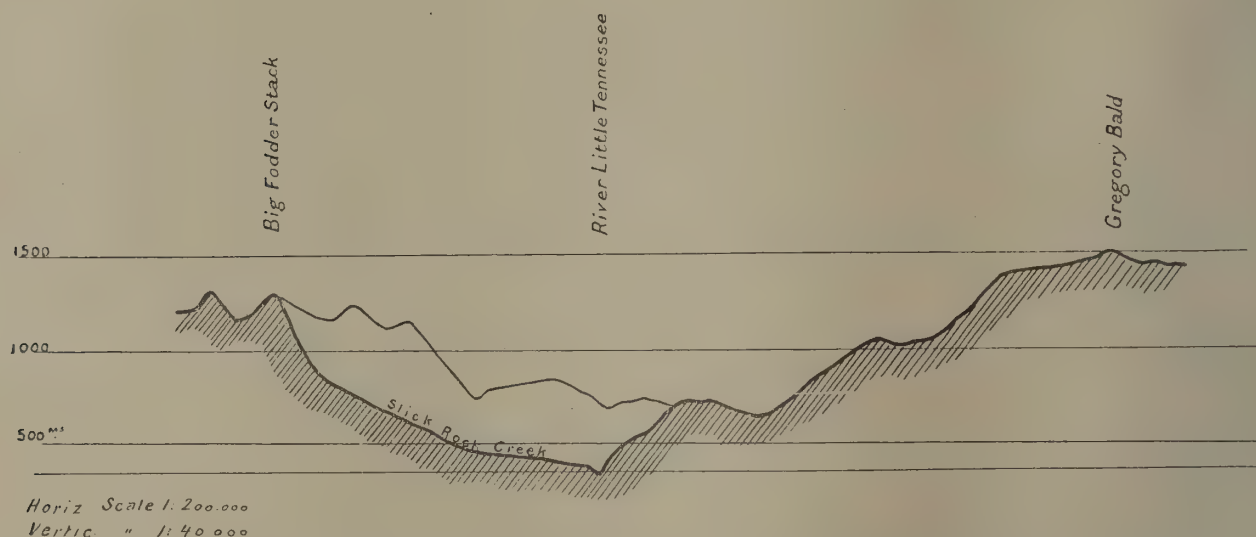


FIG. 3.—DIAGRAMMATIC SECTION OF THE CUTTING OF RIVER LITTLE TENNESSEE.

Argentine map,” which is to be found in the main chain of the Andes. The accompanying Plate II., and Figs. 1, 2, 3 and 4, graphically explain the case.

The photographs also subjoined in order to complete Maps Nos. III. and XVII. render further comment unnecessary upon this section of the boundary submitted to arbitration.

On the one hand, Plate III. figs. 1, 2, and Plate IV. fig. 1, represent the natural barrier which the Argentine Government maintain to have been stipulated between the two countries, whilst, on the other, Plate IV. fig. 2, is another irrefutable proof that where the Chilian Expert proposes landmarks

MAP

Showing the boundary line between
TENNESSEE AND NORTH CAROLINA.
 and the cutting of the rivers
 HIWASSEE, LITTLE TENNESSEE, BIG PIGEON, FRENCH BROAD,
 NOLICHUCKY AND WATAUGA.

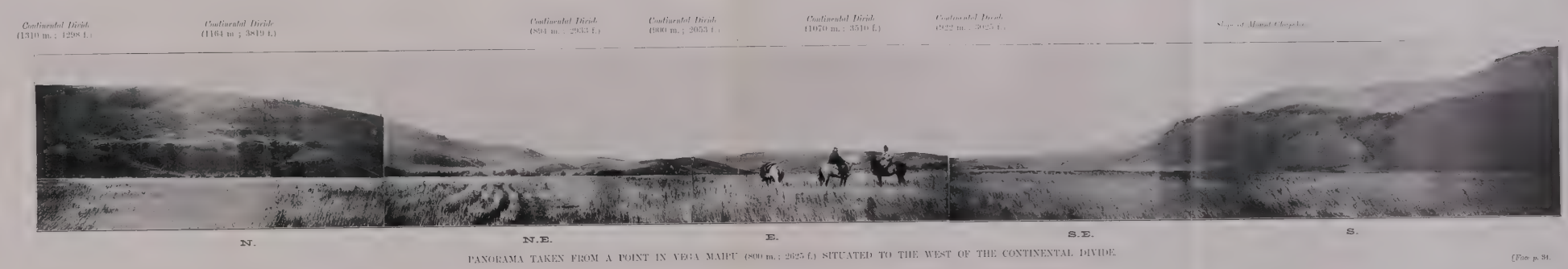
(taken from the U.S. Geological Survey of the Appalachian Region.)

----- Boundary line mainly following the watershed in the highest mountains between Tennessee and North Carolina.
 Blue Ridge carrying the principal watershed.





FIG. 2.



257 to 262 upon "the passes and accessible points of the mountain" (Protocol of 1893 ; Instructions of 1894), the requirements of the Agreements are not complied with. The region reproduced in this photograph is the one where Señor Barros Arana, incited thereto by the doctrines which he has adopted as his guide, maintains that the main chain of the Andes rises, and, by this means, he includes within Chilian territory zones settled a long time since by the Argentine Republic in virtue of her perfect right to the eastern slope of the Cordillera de los Andes.

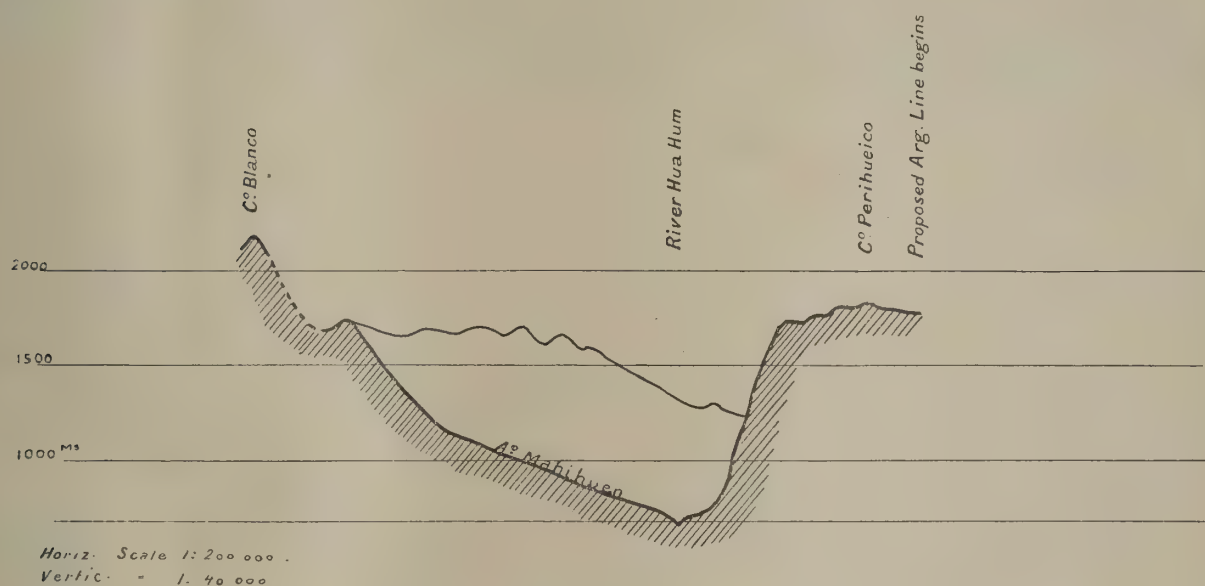


FIG. 4.—DIAGRAMMATIC SECTION OF THE CUTTING OF RIVER HUAHUM.

The Argentine Government have no doubt, moreover, that the ocular inspection made by the British Commissioners has confirmed the conclusions set forth in the "Argentine Evidence" on this part of the frontier.

(c) FROM PEREZ ROSALES TO MOUNT FITZ ROY (Argentine landmarks 282 to 303 ; Chilian landmarks 271 to 330).—The accompanying Map No. XVIII., which has been prepared according to the last data gathered on the ground by the Argentine surveyors, not only confirms the accuracy of the line planned by the Expert, Dr. Moreno, but amplifies the information placed before the Tribunal respecting the physical conditions of the zone where the frontier is to be marked

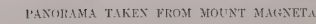
out. Between these maps and the former ones some small differences of detail may doubtless be detected, but these in no sense modify the main view which ruled the general demarcation.

The Chilian Statement, when analysing the geographical documents relating to this section, seeks to disauthorise them, and for that purpose points to a few unimportant deficiencies which have since been remedied, and which were due to the hindrances and difficulties against which it was necessary to struggle in order to overcome the tenacious opposition offered at every moment by the Chilian Expert to the exploration of the ground by the demarcating commissions. Moreover, when comparison is made between the maps submitted by both parties, a glance serves to show that more than one of the defects in the Argentine maps appear exactly copied in the Chilian, and that the latter, in spite of their later date, in no case contain a greater volume of data concerning that part of the Cordillera de los Andes where the line submitted to arbitration is to run.

The existence of a lofty wind-gap to the south of Mount Tronador, and in the region where Map No. IV. shows a ridge of uniform altitude, does not and cannot alter in the least degree the excellence of the frontier projected there by the Argentine Expert. It should also be borne in mind that this wind-gap is more than 400 metres (1312 feet) higher than other gaps drawn in the same map, and pertaining to the same ridge in its southern prolongation.

The Argentine Republic maintains, in accordance with the scientific opinion of her Expert, that the axis of the Cordillera de los Andes—which constitutes its main chain—is perfectly defined, and that this Cordillera is bounded on the east by an extensive longitudinal valley, the physical features of which render it similar to the western depression now occupied by the waters of the Pacific channels. The correctness of these facts has doubtless been also verified by the British Commission which has visited the region.

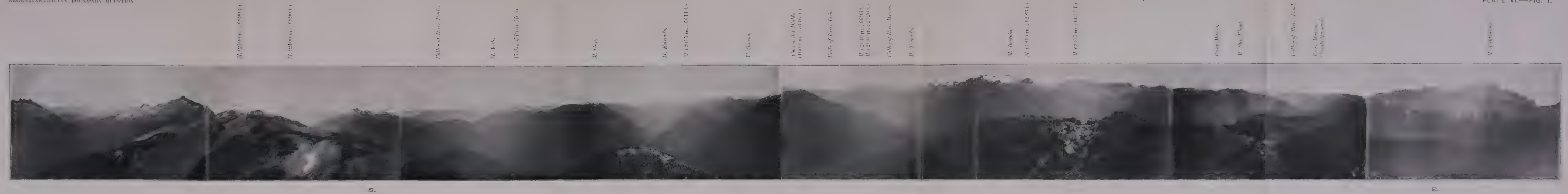
Plate V. figs. 1, 2, and Plate VI. fig. 1, once more clearly place in view the abrupt mass of mountains which, in those latitudes, constitutes the Cordillera de los Andes; in them the assemblage of lofty peaks that form the main chain stands forth. Fig. 5, and Plate VI. fig. 2, and Plate VII. fig. 1, show the tectonical



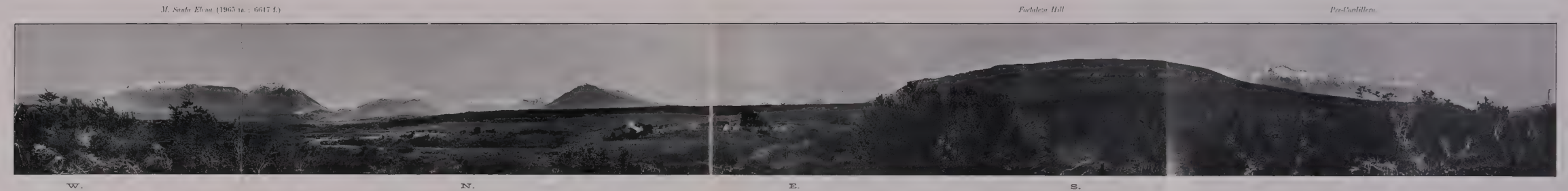
PANORAMA TAKEN FROM MOUNT MARKED C (1940 m.; 6365 ft.) EAST OF LAKE FOXCK



FIG. 2.



PANORAMA TAKEN FROM A POINT SITUATED TWO MILES TO THE WEST OF MOUNT VENTISQUERO.

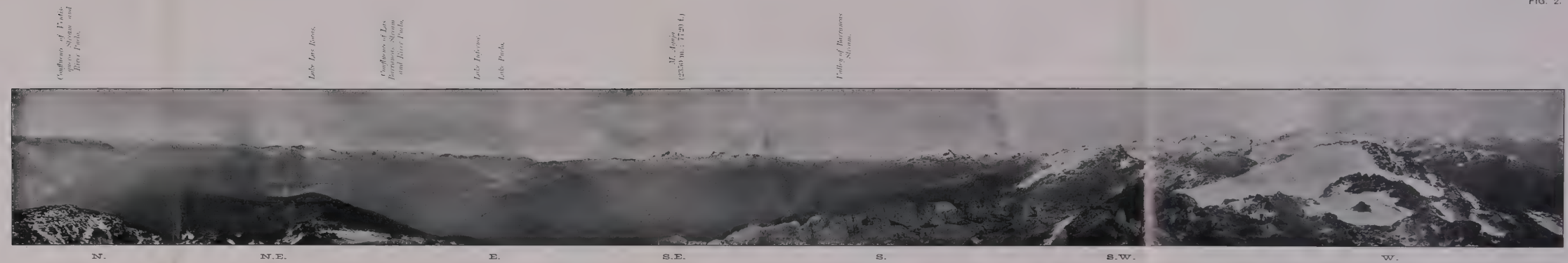


PANORAMA OF THE LONGITUDINAL DEPRESSION, TAKEN FROM A POINT BETWEEN THE BOENCHUPAN STREAM AND RIVER FOYEL.



PANORAMA TAKEN FROM THE UPPER SOURCES OF THE RIVER DOENCHUPÁN.

FIG. 2.



PANORAMA TAKEN FROM POINT H IN THE ARGENTINE BOUNDARY LINE TO THE WEST OF RIVER PUELO NARROWS.

longitudinal depression that spreads out between the Cordillera and the Pre-Cordillera. These photographs graphically prove that this great deep valley extends itself at the eastern side of the Andes, and that naturally and logically, owing to its situation and facility of access, it forms an integral portion of Argentine territory. Fig. 6 exhibits the wide opening through which the waters of this depression communicated with the present northern basin of river Chubut.



FIG. 5.—THE LONGITUDINAL DEPRESSION BETWEEN THE CORDILLERA DE LOS ANDES AND THE PRE-CORDILLERA TO THE SOUTH OF LAKE GUILLERMO (RIVER VILLEGAS).

Some Argentine colonists have settled here, and it is here also that the “main chain of the Andes” of Señor Barros Arana, i.e. the continental divide, occurs.

More to the south, the photographs in Fig. 7, and Plate VII. fig. 2, and Plate VIII. figs. 1, 2, are fresh documents confirming the rights of the Argentine Republic to the line proposed by her Expert. The snowy mountains, steep and practically impassable, follow on rising to the west of the longitudinal depression.

On the other hand, Plate IX. figs. 1, 2, will not allow of the Chilean Repre-

sentative contradicting Señor Krüger, when he states that in the region of Cholila the continental divide occurs to the east of the Cordillera de los Andes, an affirmation of all the more weight since it proceeds from an explorer who has made his surveys in the service of the Chilian Government. The lofty mountains of the west make it apparent that this summit, where the eastern slope of the Andes begins, fixes the boundary of the Treaties, and that, consequently, the whole region irrigated by the waters coming down from their glaciers, and which



FIG. 6.—THE CONTINENTAL DIVIDE BETWEEN THE RIVERS QUENQUENTREU AND MAITÉN.

forms the depression of Valle Nuevo, of Cholila, and of the lacustrine system of Lake Menendez, necessarily falls under Argentine jurisdiction. This appears, likewise, from the opinions of Dr. Steffen. "The view from the top of the water-parting boquete," he says, "shows with marvellous distinctness the deep depression of the Valle Nuevo to the west, *and behind it the imposing lines of the central snowy mass, with their numerous sloping glaciers, pierced by narrow and deep ravines, trending away from north to south apparently without end.*"

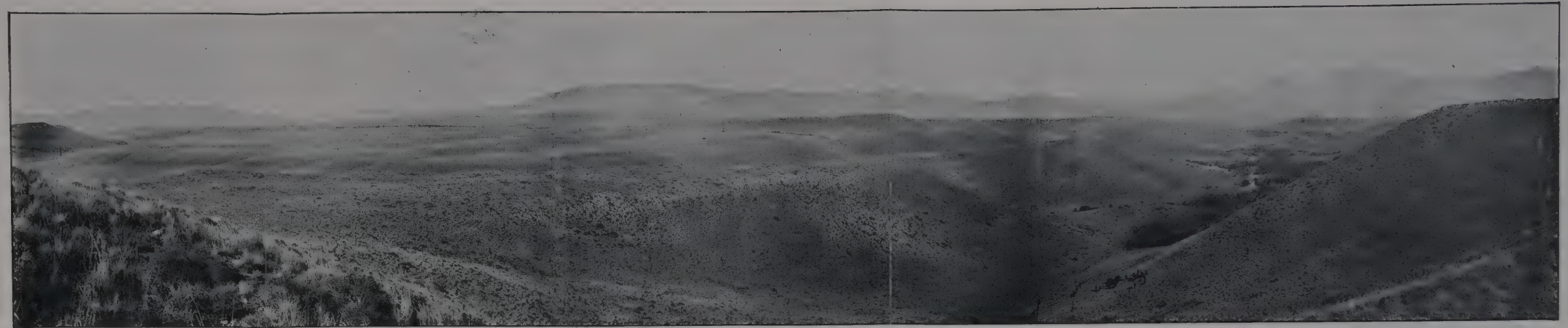


PANORAMA TAKEN FROM A POINT (1670 m.; 5479 ft.) SITUATED AT THE HEADWATERS OF THE ALERZAL STREAM.

FIG. 2.



PANORAMA TAKEN FROM POINT MARKED I. (1550 m.; 5085 ft.) SITUATED TO THE NORTH OF LAKE INFERIOR.



CONTINENTAL DIVIDE AT THE OPENING OF EPUYÉN.

FIG. 2.

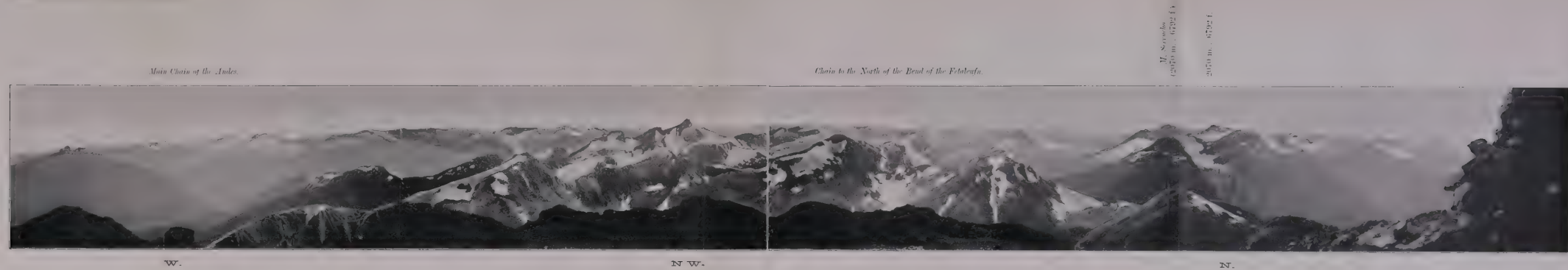


S.E.

S.

S.W.

CONTINENTAL DIVIDE AT THE PLAINS OF CHOLILA.



PANORAMA TAKEN FROM THE SOURCES OF THE RIVER IELO, AND SHOWING THE MAIN CHAIN OF THE ANDES.

FIG. 2.



THE CORDILLERA DE LOS ANDES AT THE BEND OF THE RIVER PETALEUFU.

Farther to the south, Plate X. figs. 1, 2, and Plate XI. figs. 1, 2, and the fresh data contained in the map, confirm the presence to the west of the "16 de Octubre" colony and of the Carrenleufu valley, of the great mountain mass constituting the Cordillera de los Andes, or "central massif," of Señor Steffen. There, as well as more to the north, the "*chain of high peaks*" appears as "a series of imposing snow-covered masses upon which glaciers are found; this series is broken by deep gorges, but *it constitutes as a whole a continuous central chain,*



W.

FIG. 7.—GLACIER IN WHICH THE RIVER TIGRE TAKES ITS ORIGIN.

which may be recognised, if one chooses to call it so, as the principal chain of the Cordillera." Señor Steffen, who is also responsible for these words, adds: "The high snowy ridge which bounds the valley of the river Frío on the east is continued to the south of the Carrenleufu river valley by the above-mentioned masses of Mount Serrano and two other very similar mountains."

So that to pretend, as Chile pretends, that the great 16 de Octubre-Carrenleufu valley belongs to her as a part of the eastern slope of the Andes is to make

an affirmation contradicted by the features of the ground and by the Chilian explorers themselves. Plate XII. fig. 1 shows the landscape to the east of the valley. The contrast could not be more striking. To the west, the snows upon the peaks of the high mountains; to the east, rocks worn away by the glaciers which in former times descended from those mountains in their natural march towards the Atlantic, and upon the detritus of which, as may be seen in the same plate, thousands of Argentine cattle are grazing. It is there that Señor Barros Arana considers that the main chain of the Andes, the boundary of the respective sovereignty of each country, rears itself.

Still farther south, the fresh set of chartographic documents, amplified by Fig. 8 and Plate XII. fig. 2, Plate XIII. figs. 1, 2, and Plate XIV. fig. 1, contain irrefutable proofs that the Cordillera de los Andes, with its imposing lines, is prolonged to the west and south-west of Lake General Paz; and it shows besides the true shape of the Laguna Verde, or Pico No. 6, a fjordian remnant of the former lake that extended to the east across the plains where the continental divide now occurs. By comparing the two lines in this part, it is easy to understand why the theories of the Expert, Señor Barros Arana, elaborated in his study, have been contradicted by the explorers under his orders who have visited the region, and amongst others, by Señor Steffen. "It will certainly not be generally granted," he writes, "that the main chain of the Andes coincides with the ridge of crests dividing the waters. The decision of this matter is entirely one of individual appreciation, *and no geographer of to-day will think of basing his plan of a mountain system solely upon that of a hydrographic map.*" And further on he adds, "No objection can be raised to the conception which regards *as the 'main chain' the imposing central snow-chain, which though, as before mentioned, it is full of deep gaps and intersected by rivers, nevertheless distinctly presents the series of highest crests.*" It is these "highest crests" which are to be respected as immutable, natural landmarks, in order to give strict fulfilment to the covenants.

The British Commission, charged with the survey of the ground, have also examined the region of the *divortia aquarum*, where the easternmost sources of the various tributaries of the river Aisén are to be found, in respect of which



Main Chain of the Andes.

1960 m. ; 6431 f.

S.W.

W.

N.W.

PANORAMA TAKEN FROM MOUNTAIN MARKED 1760 m. ; 5775 f. TO THE SOUTH OF THE RIVER HIELO.

FIG. 2.

1830 m. ; 6004 f.

2070 m. ; 6792 f.

1900 m. ; 6234 f.

1920 m. ; 6300 f.

M. Serrucho
(2700 m. ; 6792 f.)

Mountains to the N.W. of River Fetalefufu.



N.

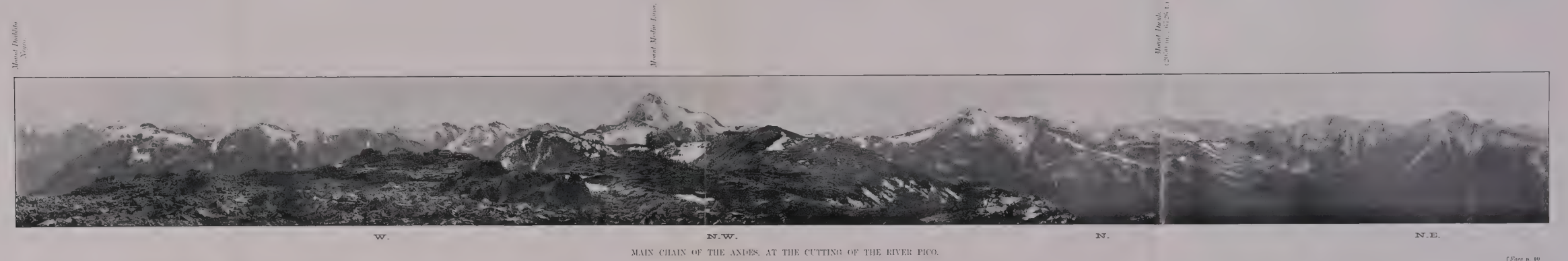
N.E.

E.

PANORAMA TAKEN FROM A POINT SITUATED TO THE WEST OF MOUNT SERRUCHO, SOUTH OF THE FETALEUFU.



FIG. 2.



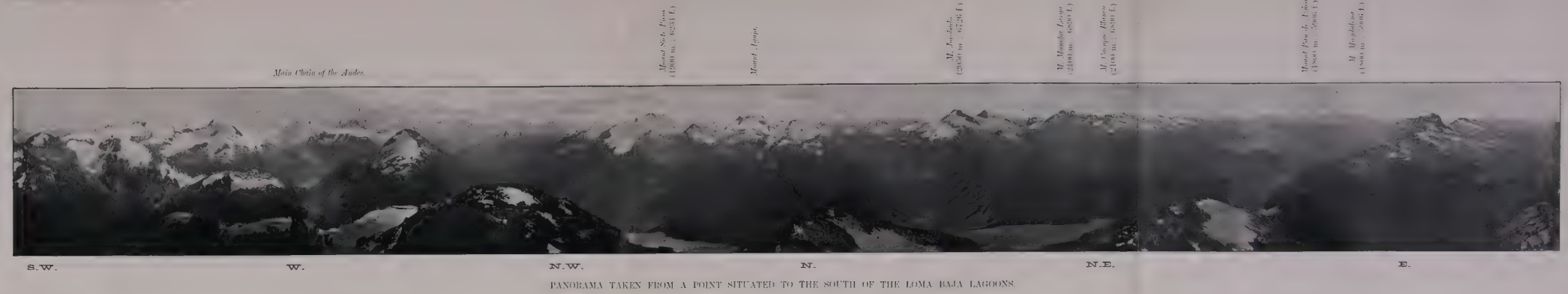


FIG. 2

Señor Steffen said: "The surprising fact has become clear that the Aisén, with its branchwork of springs, penetrates far into the eastern tableland of the sub Andean ridges, *and passes through the whole breadth of the Cordillera in a valley system with many branches.*" This examination and Plate XIV. fig. 2 render it unnecessary to dwell upon the error of those who consider the plains where, in that region, the continental divide occurs as the main chain of the Andes. The Chilian Representative pretends that to the west of these plains, the Cordillera has lost its characteristics; in order to disprove this, it suffices to draw attention to the set of chartographic documents which, in the opinion of the Argentine Government, is by itself conclusive. It reveals the presence of great mountain masses, along the snowy summits of which the international frontier must be traced in accordance with the Agreements.

The same Commission have examined the region of the Fénix river, and after all that has been said and seen of it, it seems superfluous to insist upon the fact that Señor Barros Arana has sketched his frontier-line far to the east of the zone within which Nature, History and

Mount Tres Hermanas.

Mount Norte.



FIG. 8.—MOUNTS TO THE S.W. OF LAKE GENERAL PAZ.

N.-W.-

Treaties confine it. Only by reason of the exigencies imposed upon him by the abstract conceptions of his doctrines, could the Chilean Representative maintain that the Cordillera de los Andes, here represented by the snowy line where Mounts San Valentín, Arenales and many other high peaks rise, does not present its typical features, and that the main chain rears itself in the lowlands far to the east of the region through which the river Fénix flows.

Mount Cumbre
(2117 m.; 6946 f.)

Mount Gorra de Nieve
(1967 m.; 6454 f.)

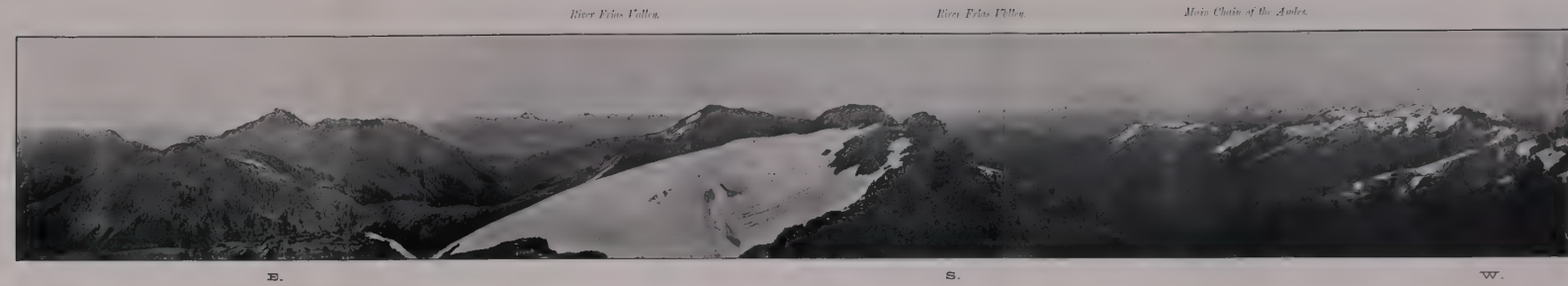


River Coligüe.

W.

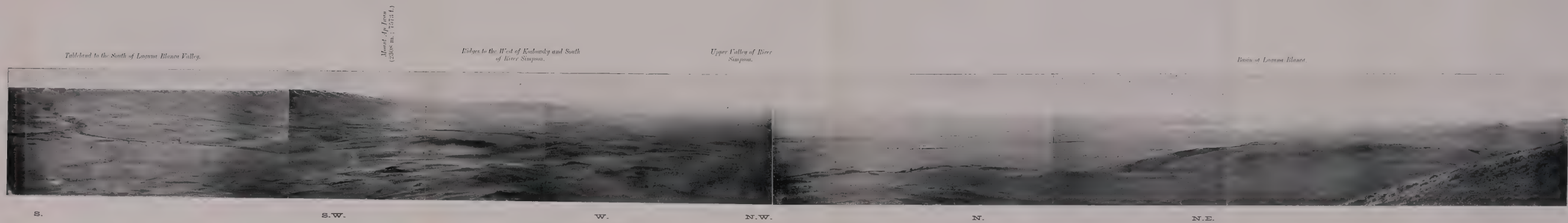
FIG. 9.—MOUNTS TO THE WEST OF THE RIVER COLIGÜE.

The fresh set of geographical data contained in Map No. XVIII. and Plate XV. figs. 1, 2, add to the knowledge of the zone to the west of those plains and tablelands, and make apparent the true physiognomy of the Pre-Cordillera, of the Cordillera de los Andes, and of the longitudinal depression dividing them. Through this depression the river Las Heras runs, this being the outlet of the lacustrine network spreading out at the foot of the eastern



PANORAMA TAKEN FROM A POINT TO THE SOUTH OF LOMA BAJA

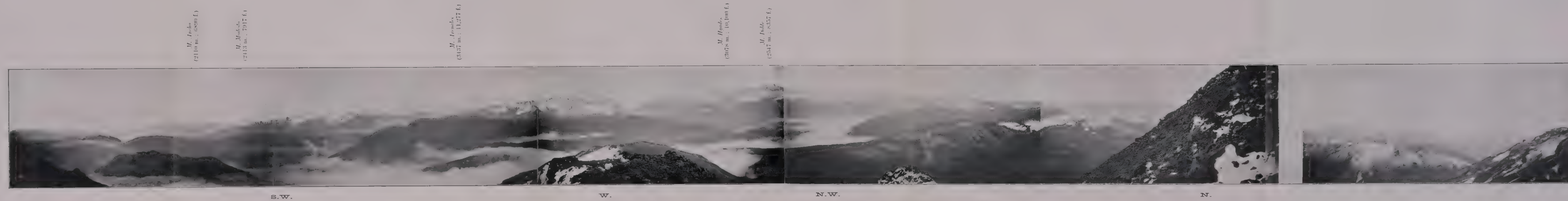
FIG. 2.



PANORAMA TAKEN FROM A HILL, SITUATED TO THE SOUTHEAST OF KOSLOWSKY IN THE REGION OF THE CONTINENTAL DIVIDE



PANORAMA SHOWING THE CORDILLERA DE LOS ANDES TO THE WEST OF LAKE BUENOS AIRES AND THE RIVER LAS HERAS.



PANORAMA OF THE CORDILLERA DE LOS ANDES TO THE WEST OF LAKE BUENOS AIRES AND THE RIVER LAS HERAS

Andean slope, which Chile claims to transform into a western, because this river has opened a passage for itself towards the Pacific through a cleft in the mountain.

Plate XVI. figs. 1, 2, and Plate XVII. show the lowlands where the continental divide occurs. The Chilian Representative hopes to find support for Señor Barros Arana's theories, the basis of his designed frontier, in the Argentine demarcation proposed as a means for leaving within Chile the waters of Calén Inlet. The Tribunal, nevertheless, will find in Map No. XVIII., and in Figs. 9,

Mount Cumbre
(2117 m.; 6946 f.)

Mount Gorra de Nieve
(1967 m.; 6454 f.)



FIG. 10.—MOUNTS TO THE WEST OF THE RIVER COLIGÜE.

10 and 11, and Plate XVIII. figs. 1, 2, fresh details which confirm the excellence of the said demarcation within the Andean massif, the eastern base of which is bathed by lakes Azara, Nansen and San Martín; whilst this same Map and Plate XIX. figs. 1, 2, and Plate XX. figs. 1, 2, once more show the fundamental error of the Chilian Expert's line to the east of the Cordillera, in the regions of Lake Pueyrredon, of Lake Gío, of the river Mayer, and of Lake San

Martín. To the west lies the mountain with perpetual snow, intersected by impetuous, innavigable torrents, to the east the wide, open plain.

(d) REGION NEAR PARALLEL 52° S. LAT. (Argentine landmarks Nos. 306 and the rest without number that follow in the list of the Argentine Expert; Chilian landmarks Nos. 333 to 348).—The Chilian Statement says that in the region close to parallel 52° S. lat., the continental divide is, likewise, the frontier line agreed upon.

Mount Pilares
(1620 m.; 5315 f.)

*Southern bend of
River Coligüe.*



S.W.

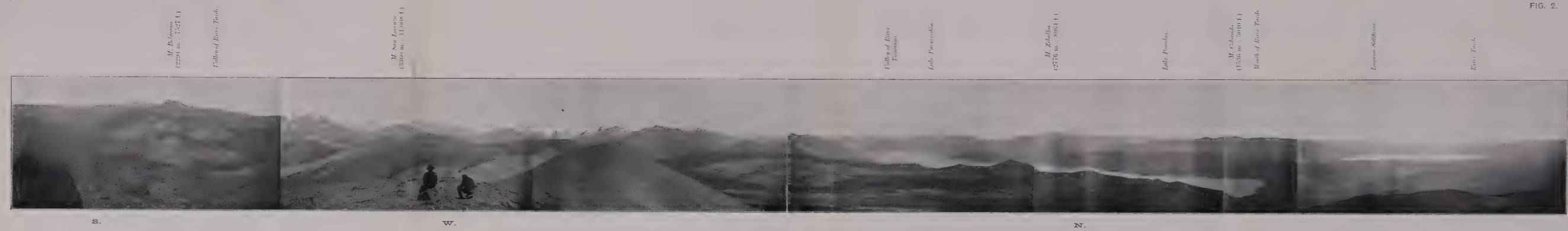
FIG. 11.—SOUTHERN BEND OF THE RIVER COLIGÜE.

The meaning of this interpretation is to declare the absolute inutility of the clauses recorded in Art. 2 of the Protocol of 1893, and in Art. 3 of the Agreement of 1896, since it would have been sufficient to say that along the whole length in which the two countries are conterminous, the continental divide is the sole rule for delimitation, should that have been the case.

These, however, are not the facts. If the summit of the Cordillera de los



PANORAMA OF THE CONTINENTAL DIVIDE REGION, TAKEN FROM A POINT AT THE BEND OF THE RIVER BLANCO.



PANORAMA TAKEN FROM A HILL TO THE SOUTH OF LAKE POSADAS, BETWEEN THE RIVERS TARDE AND FURIOSO.

FIG. 2.

M. Colorado
(1536 m. ; 5040 f.)

Continental Divide.

M. Tamango
(1722 m. ; 5650 f.)

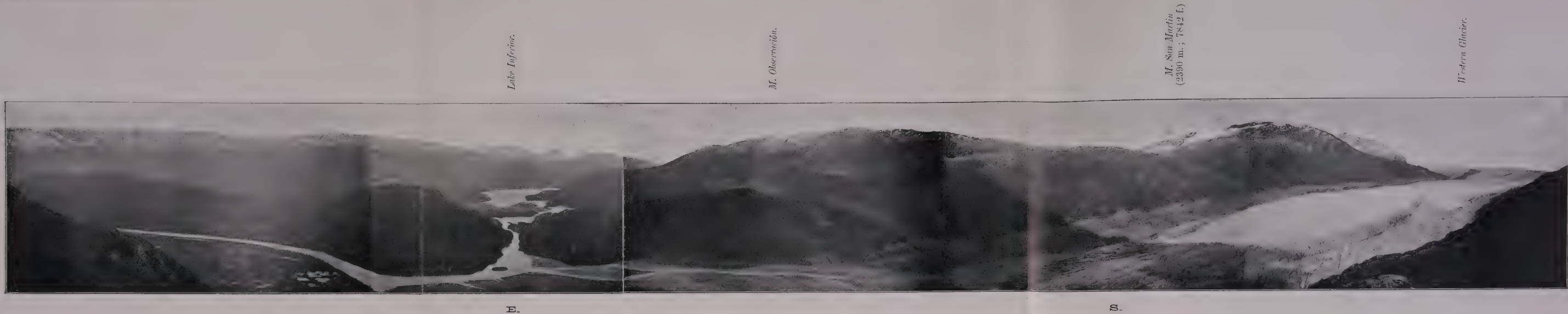
Table-land of Lake Buenos Aires.



W.

N.W.

THE CONTINENTAL DIVIDE FROM THE BEND OF THE RIVER BLANCO.



THE CORDILLERA DE LOS ANDES TO THE N.W. OF LAKE SAN MARTÍN.

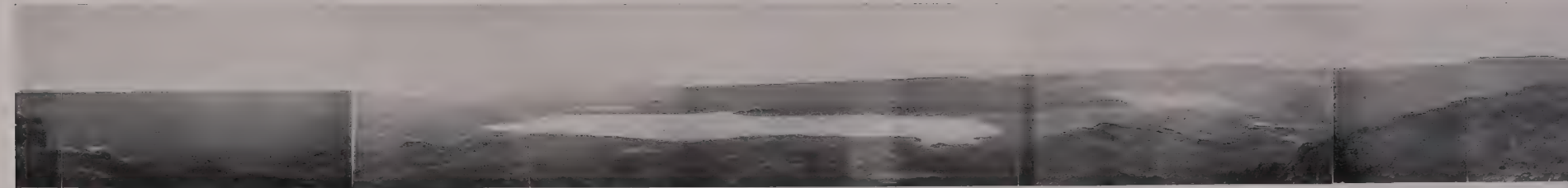


PANORAMA TAKEN FROM A POINT OF THE ARGENTINE BOUNDARY LINE SITUATED TO THE S.W. OF THE CROSSING OF THE RIVER TORO.

Continental divide.

Continental divide.

Mouth of Olla Stream.



E.

S.

THE CONTINENTAL DIVIDE FROM A POINT TO THE SOUTH OF SALITRE LAGOON.

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

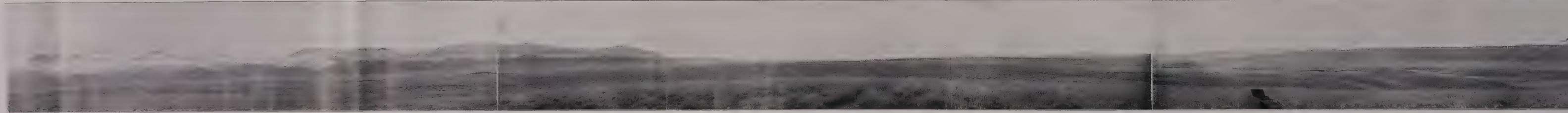
Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)

Continental divide
(1252 m.; 4108 f.)



N.W.

N.

N.E.

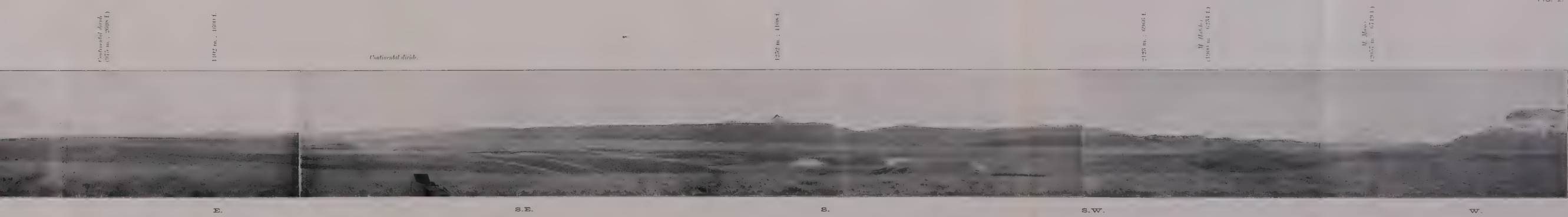
E.

S.E.

PANORAMA TAKEN FROM A POINT IN THE CONTINENTAL DIVIDE BETWEEN THE RIVERS CHICO AND TUCUTUCU.

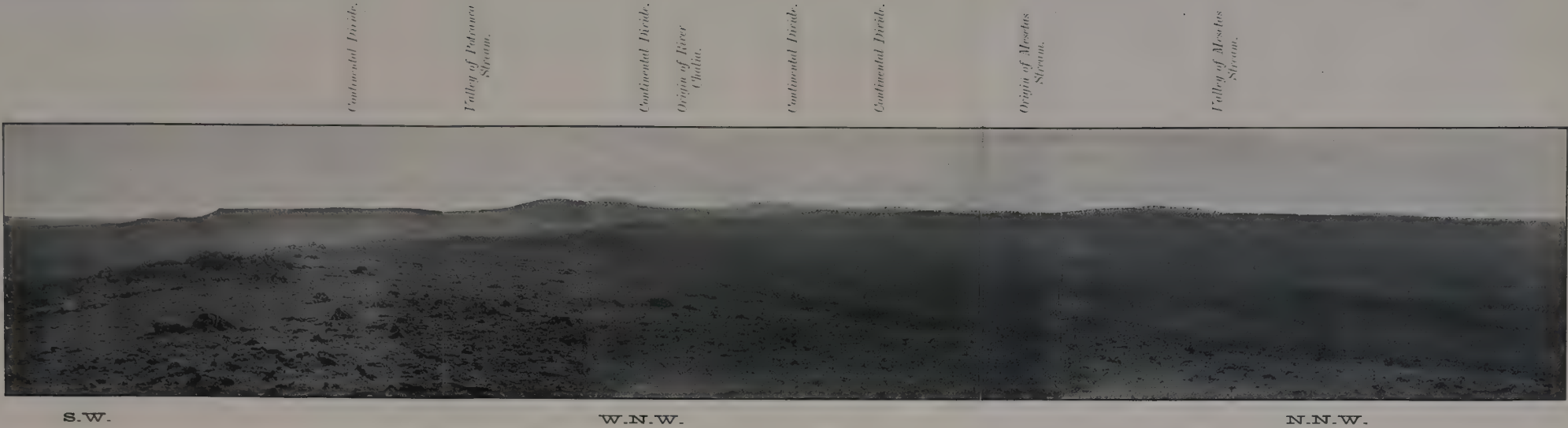


THE CONTINENTAL DIVIDE FROM A POINT TO THE SOUTH OF SALTIROSA LAGOON.



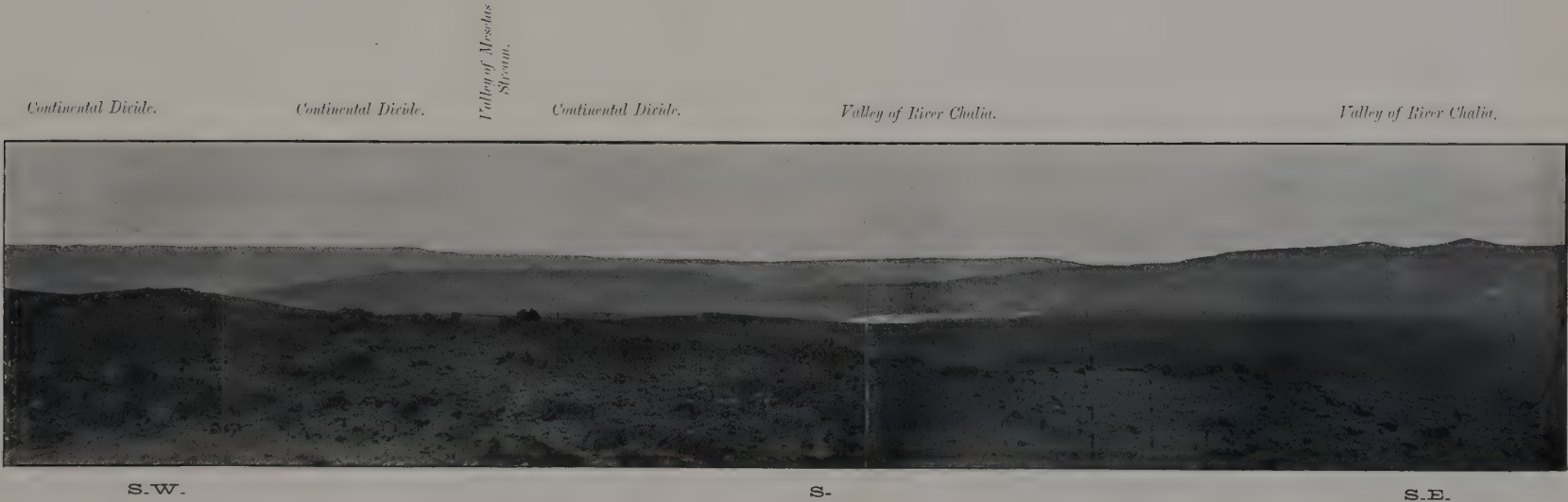
PANORAMA TAKEN FROM A POINT IN THE CONTINENTAL DIVIDE BETWEEN THE RIVERS CHICO AND TUCUTUCU.

FIG. 2.



THE CONTINENTAL DIVIDE FROM A POINT TO THE SOUTH OF LAKE TAR.

FIG. 2.



PANORAMA TAKEN FROM A POINT SITUATED TO THE SOUTH OF LAKE TAR.

Andes, in the neighbourhood of parallel 52° S. lat., has inlets of the Pacific Ocean upon its eastern side, those inlets belong to Chile, and a boundary must be traced which shall respect their shores. If this does not occur, the summit of that Cordillera continues to be, as far as the said parallel, the dividing barrier.

In the two Statements presented to the Tribunal, reference has been made to the difficulties encountered during the negotiation of the Protocol of 1893. The frontier in the Cordillera would have, indeed, left within Argentine territory part of several inlets opening towards the Pacific Ocean, and in order that Chile should be owner of all the coasts bathed by that sea, it was agreed to draw a line answering to that purpose. The Argentine Republic proposed to leave a coastal fringe of one mile above high-water mark ; Chile sought to carry the line along the heights adjacent to the waters, in a similar manner, therefore, to that arranged close to the Straits of Magellan. When she made this proposal, Chile was aware that the continental divide occurs far to the east and north of those adjacent heights, and took no heed of the affirmations made by the present Expert, Señor Bertrand.

In the same way that the words "Cordillera de los Andes" bear a scientific meaning, so likewise does the word "*costas*." Thereby are indicated lands washed by the sea, as Señor Barros Arana has correctly expressed it. Divers circumstances may in some cases contribute to give greater latitude to the political conception of this appellation, but its geographical sense is always the same, and it is the latter that was had in view when framing agreements regarding natural features, waters and heights.

The coasts ("costas") cannot be extended inland for an indefinite number of miles, and still less can they reach as far as the continental divide. No one could with any propriety say that the line of English coasts upon the North Sea reaches to Gloucestershire, that Oxford is a maritime station, or that continents are merely constituted by the intersection of two coasts. Nevertheless, the Chilian Expert, in spite of his contention that branches of the Cordillera spread themselves out as far as the north of the Pacific inlets, finds, when it is a question of fixing "a divisional line leaving to Chile *the coasts* of said channels," "that the

natural interior delimitation of said coasts is no other than the one of the hydrographical basin which empties into them." (Record of September 1, 1898.)

Mention has been made in the preceding pages of the analogy between Alaska and the western region of Patagonia as regards their geographical formation. As if to render their similarity yet more striking, a boundary question is pending in both regions; in both the summit of a chain forms the dividing line; and in both the whole of the coasts on the Pacific Ocean are to remain under the jurisdiction of one only of the adjacent nations. (Treaties of 1825 and 1881.)

In Alaska, in the hypothesis of no mountain existing, the maximum breadth of the coastal fringe has been fixed at thirty miles, and, therefore, the States under whose dominion it has been, and now is, have never thought of extending it up to the head-streams of the rivers. Should they have thought of doing so it would have been unnecessary to determine the inland extent of their jurisdiction. Chile, on the other hand,—in virtue of the concession made to her in the Protocol of 1893, and basing herself upon the inconsistent continental divide,—claims to enclose within the coast line of Last Hope Inlet lands that are as much as seventy miles away therefrom, and that for many years have been under Argentine political control without any protest.

The Tribunal is aware of the successive and public acts of occupation exercised over that zone by the Argentine Republic, at dates both anterior and subsequent to the signature of the Protocol, and is also acquainted with the secret, guarded, and veiled manner in which the Chilean pseudo-occupation was effected by simple verbal authorisation until the moment when the Experts met at Santiago for the planning of the general line. So secret, guarded and veiled has this occupation been that no reference to it has been made in the last Statement of the Chilean Representative.

It is, moreover, preposterous to contend that the coasts of the seas are equivalent to the general slopes watered by the rivers emptying into those seas; and, therefore, the supposed Chilean rights to that region, being without any justification, must clearly be rejected.

If Chile, with her title to the coasts, cannot advance up to the head-streams

of the rivers, neither could she extend her territory in that direction under cover of the supposition that the line proposed by her Expert, i.e. the continental water-divide, does not swerve from the Cordillera de los Andes. No geographer personally acquainted with the ground could say that the wide glacial plain to the S.E. of the bend of the river Vizcachas constitutes the masses of the said Cordillera. They will all recognise, on the contrary, that "the divortium aquarum of the waters which flow into both oceans is frequently found to separate," as the Chilian Expert, Señor Bertrand, expressed it, "from the Cordillera broken ridge, and to remove farther to the east, *sometimes even to the level region of the Pampas.*" They will all acknowledge, moreover, as Señor Bertrand added, that "*this occurs more especially in the vicinity of parallel 52° S., where the plain extends from one ocean to the other.*"

A British Commissioner recently visited the colony of "16 de Octubre" and the valley of the Carrenleufu, in accordance with instructions imparted by His Britannic Majesty's Principal Secretary of State for Foreign Affairs. In his Report, presented to both Houses of Parliament in March 1902 (Argentine Republic, No. 1, 1902), the Commissioner, Mr. Ernest Scott, said: "The rivers all find their way into the Carrenleufu, or Big River, which flows *east from the Andes* until it reaches the lower end of Cym Hydfryd, and then describes a sharp bend south and west, eventually finding its way through rocky gorges into the Pacific." If in that region, where the Pre-Cordillera presents some hills of relative importance, it is said that the Carrenleufu "*flows east from the Andes,*" what could be said respecting the bend of the river Vizcachas, running to the east of the isolated protuberance of Palique, the topographical importance of which is much less than that of some of the hills on which London is built? To say that in that part the line separating the waters that flow into the Vizcachas and the Coile passes along the features constituting the arcifinious boundary, i.e. the main chain of the Andes, is tantamount to saying that a general height hardly exceeding that of a curb-stone can serve as a frontier in one of the greatest mountain ranges of the world. Through this region, nevertheless (where the ground is even more level than at the bend of the river Fénix), runs the line which the Chilian Representative upholds, under the pretext that the continental divide

occurs in that place, a divide that one man's day's work could alter by diverting towards the Atlantic,—their old natural outlet,—waters which now flow into the Pacific.

In order to contribute towards a better acquaintance with this region Map XIX. is subjoined.

It is unnecessary further to dwell upon this point, particularly after the ocular inspection made by the British Commissioners, who visited the region in fulfilment of the provision in the Agreement of April 17, 1896. In the zone in question the Chilian line,—the determination of which could only be arrived at by means of minute observations,—would be an incessant source of jurisdictional disputes, and, consequently, a negation of those views by which the signatories of the Agreements in force were inspired when taking into account the political advantages of both nations, and providing for their easy development without friction or difficulties.

The whole of the fresh documents which the Argentine Government place in the hands of the Tribunal contribute, therefore, to strengthen the scientific views and conceptions set forth by their Expert when planning the general line. This, in strict obedience to the Agreements, follows the grandest, most compact, and highest massif of the Cordillera de los Andes; it unites, when the case arises, the great orographical blocks, divided in appearance by the water-gaps of the rivers Huahum, Manso, Puelo, Fetaleufu, Carrenleufu, Pico, Frías, Aisén, Huemules, Las Heras and Toro; it leaves in Argentine territory the whole of the lands and waters which naturally and logically belong to it, situated to the east of the summit of the Cordillera de los Andes; and it respects, even in the minutest details, the regions to which Chile can show legal title.

The Argentine Expert's line only cuts, as may be seen, certain particular rivers, some of the sources of which are far to the east of the frontier. His line has always been guided by a standard inspired with the spirit of the Agree-

ments, that is to say, the desire to consecrate as a dividing wall the barrier of the Cordillera de los Andes, which, by its admirable typical characteristics, defines the different directions in which the energies of either nation find their scope. It has been sought, by means of this demarcation, to prevent such clashings of jurisdiction as might prejudice the above purposes. It is on this account that, when the line has crossed rivers, torrents not possible for use as a means of navigation, rapids and narrows, making passage difficult, have been chosen; and it is on this account, likewise, that it has preserved untouched the lakes, the utilisation of which in common might be a perennial source of disputes.

The project of the Argentine Expert has been based upon the surveys of the geographical features. The idea constituting the *alma mater* of the Agreements is that of tracing a line which by dividing the sovereign jurisdictions, should facilitate good relations between the two countries. In order to carry out this line, it was necessary to seek upon the ground, and nowhere else, the snow-covered and eternal landmarks which must divide the two territories. The maps and photographs laid before His Britannic Majesty's Government from the very first day on which the question was submitted to their decision, prove that the above-mentioned purpose has been perseveringly kept in view by the Argentine Government, whose Boundary Commissions have explored the zone of delimitation, by going over it in every direction along the various routes indicated in the sketch on Plate XXI.

In the course of this statement, attention has again been drawn to the fact that when the statesmen of Chile were engaged in considering the future of both countries,—even at the moment when the frontier question was being argued before the Tribunal,—they declared that the separation of jurisdiction by the snowy summit of the Andes was a pledge of peace for South America. To-day, recent arrangements have strengthened the bonds of friendship between the Argentine Republic and Chile, and as if the necessity were felt of paying homage on that account to the only barrier that can render the harmonious development of the living forces of the two nations everlasting, in both has sprung up the simultaneous idea of erecting historical statues to the leading men

of the time of their independence, in that very same pledge of peace, in the summit of the Cordillera, the perpetual snows of which indicate to both alike the sphere which Nature has marked out for their respective destinies. No one, meanwhile, has remembered that the line of the continental divide in the level plains of Patagonia was upheld by the Chilian Representative before the British Government.

Of the landmarks proposed by the Chilian Expert and rejected by the Argentine, some are situated outside the Cordillera de los Andes, and cannot in any way be taken into account owing to their being extraneous to the arbitration agreed upon ; others are found to be outside of the main chain of the Andes, in lands over which the Argentine Republic retains her dominion and sovereignty. The landmarks proposed by the Expert, Dr. Moreno, on the other hand, are the expression of the dictates of Nature, of History, of the agreements, and of common sense. For these reasons the Argentine Republic confidently expects that the Government of His British Majesty will confirm the said landmarks which bear, on the general plan, Nos. 1, 2, 267 to 274, 282 to 303, 306, etc., and are projected in the Cordillera de los Andes "*constituting always a barrier between Chile and the Argentine Republic.*"

LONDON : *September* 20, 1902.

APPENDIX

A W A R D

PRONOUNCED BY

HIS MAJESTY KING EDWARD VII.

AS ARBITRATOR BETWEEN

THE ARGENTINE REPUBLIC AND THE REPUBLIC OF CHILE

WITH REFERENCE TO THE BOUNDARY TO BE TRACED BETWEEN THE TWO STATES

IN CONFORMITY WITH THE

TREATY OF 1881 AND THE PROTOCOL OF 1893

LONDON, NOVEMBER 20, 1902

WHEREAS, by an Agreement dated the 17th day of April, 1896, the Argentine Republic and the Republic of Chile, by their respective Representatives, determined :—

That should differences arise between their experts as to the boundary line to be traced between the two States in conformity with the Treaty of 1881 and the Protocol of 1893, and in case such differences could not be amicably settled by accord between the two Governments, they should be submitted to the decision of the Government of Her Britannic Majesty :

AND WHEREAS such differences did arise, and were submitted to the Government of Her late Majesty Queen Victoria ;

AND WHEREAS the Tribunal appointed to examine and consider the differences which had so arisen, has—after the ground has been examined by a Commission designated for that purpose—now reported to Us, and submitted to Us, after mature deliberation, their opinions and recommendations for Our consideration :

Now WE, EDWARD, by the grace of God, of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas, King, Defender of the Faith, Emperor of India, etc., etc., have arrived at the following decisions upon the questions in dispute, which have been referred to Our arbitration, viz. :—

1. The region of the San Francisco Pass ;
2. The Lake Lacar Basin ;
3. The region extending from the vicinity of Lake Nahuel Huapi to that of Lake Viedma ; and
4. The region adjacent to the Last Hope Inlet.

ARTICLE I.

The boundary in the region of the San Francisco Pass shall be formed by the line of water-parting extending from the pillar already erected on that Pass to the summit of the mountain named Tres Cruces.

ARTICLE II.

The basin of Lake Lacar is awarded to Argentina.

ARTICLE III.

From Perez Rosales Pass near the north of Lake Nahuel Huapi, to the vicinity of Lake Viedma, the boundary shall pass by Mount Tronador, and thence to the River Palena by the lines of water-parting determined by certain obligatory points which we have fixed upon the Rivers Manso, Puelo, Fetaleufu and Palena (or Carrenleufu) ; awarding to Argentina the upper basins of those rivers above the points which we have fixed, including the valleys of Villegas, Nuevo, Cholila, Colonia de 16 Octubre, Frio, Huemules and Corcovado ; and to Chile the lower basins below those points.

From the fixed point on the River Palena, the boundary shall follow the River Encuentro to the peak called Virgen, and thence to the line which we have fixed crossing Lake General Paz, and thence by the line of water-parting determined by the point which we have fixed upon the River Pico, from whence it shall ascend to the principal water-parting of the South American Continent at Loma Baguales, and follow that water-parting to a summit locally known as La Galera. From this point it shall follow certain tributaries of the River Simpson (or southern River Aisen), which we have fixed, and attain the peak called Ap Ywan, from whence it shall follow the water-parting determined by a point which we have fixed on a promontory from the northern shore of Lake Buenos Aires. The upper basin of the River Pico is thus awarded to Argentina, and the lower basin to Chile. The whole basin of the River Cisnes (or Frias) is awarded to Chile, and also the whole basin of the Aisen, with the exception of

a tract at the head-waters of the southern branch including a Settlement called Koslowsky, which is awarded to Argentina.

The further continuation of the boundary is determined by lines which we have fixed across Lake Buenos Aires, Lake Pueyrredon (or Cochrane), and Lake San Martin, the effect of which is to assign the western portions of the basins of these lakes to Chile, and the eastern portions to Argentina, the dividing ranges carrying the lofty peaks known as Mounts San Lorenzo and Fitzroy.

From Mount Fitzroy to Mount Stokes the line of frontier has been already determined.

ARTICLE IV.

From the vicinity of Mount Stokes to the 52nd parallel of south latitude, the boundary shall at first follow the continental water-parting defined by the Sierra Baguales, diverging from the latter southwards across the River Vizeachas to Mount Cazador, at the south-eastern extremity of which range it crosses the River Guillermo, and rejoins the continental water-parting to the east of Mount Solitario, following it to the 52nd parallel of south latitude, from which point the remaining portion of the frontier has already been defined by mutual agreement between the respective States.

ARTICLE V.

A more detailed definition of the line of frontier will be found in the Report submitted to Us by Our Tribunal, and upon the maps furnished by the experts of the Republics of Argentina and Chile, upon which the boundary which we have decided upon has been delineated by the members of Our Tribunal, and approved by Us.

Given in triplicate under Our hand and seal, at Our Court of St. James', this twentieth day of November, one thousand nine hundred and two, in the Second Year of Our Reign.

(L.S.) EDWARD, R. & I.

ARGENTINA-CHILE ARBITRATION.

REPORT.

MAY IT PLEASE YOUR MAJESTY,

WE, the Undersigned, members of the Tribunal appointed by Her late Majesty Queen Victoria to examine, consider, and report upon the differences which have arisen between the Governments of the Republics of Argentina and Chile, with regard to the delimitation of certain portions of the frontier-line between those two countries—which differences were referred (by a Protocol signed at Santiago (Chile) on the 17th April, 1896) to the arbitration of Her Majesty's Government, beg humbly to submit the following Report to Your Majesty :—

2. We have studied the copies of the Treaties, Agreements, Protocols, and documents which have been furnished for the use of the Tribunal by the Ministers of the Republics of Argentina and of Chile in this country.

3. We have sat as a Tribunal at the Foreign Office on several occasions, and have heard oral statements and arguments.

4. We invited the Representatives of the respective Governments to furnish us with the fullest information upon their respective contentions, and with maps and topographical details of the territory in dispute, and we have been supplied with copious and exhaustive statements and arguments in many printed volumes, illustrated by maps and plans, and by large numbers of photographs indicating pictorially the topographical features of the country.

5. We desire to take this opportunity of acknowledging our indebtedness to the Representatives, and the experts appointed by both Governments, for their laborious researches, for the extensive surveys which they have executed in regions hitherto but little known, and for the historical and scientific information which they have laid before us relating to the controversy; and we wish to express our high appreciation, not only of their skill and devotion, but also of the very courteous and conciliatory manner in which they have approached subjects from their nature necessarily contentious.

6. After a preliminary consideration of this voluminous information, we arrived at the point at which it became advisable that an actual study of the ground—as provided for in the Agreement of 1896—should be undertaken; and upon our suggestion Your Majesty's Government nominated one of our members, Colonel Sir Thomas Holdich, of the Royal Engineers, a Vice-President of the Royal Geographical Society, to proceed as Commissioner to the disputed territory, accompanied by an experienced staff.

7. Sir Thomas Holdich and his officers were received with great cordiality and friendliness by the Presidents of the two Republics, and were given every assistance and facility by the officials and experts of both Governments.

8. The Technical Commission so appointed visited all the accessible points in the territory in dispute which were material to a solution of the question, and acquired a large stock of additional information upon questions which presented certain difficulties. Their Reports have been laid before the Tribunal, and the information contained in them, supplementing as it does that afforded by the respective Representatives, is in our opinion sufficient to enable us to make our recommendations.

9. Before setting forth the conclusions at which we have arrived, we shall briefly review the essential points upon which the two Governments were unable to arrive at an agreement.

10. The Argentine Government contended that the boundary contemplated was to be essentially an orographical frontier determined by the highest summits of the Cordillera of the Andes ; while the Chilian Government maintained that the definition found in the Treaty and Protocols could only be satisfied by a hydrographical line forming the water-parting between the Atlantic and Pacific Oceans, leaving the basins of all rivers discharging into the former within the coast-line of Argentina, to Argentina ; and the basins of all rivers discharging into the Pacific within the Chilian coast-line, to Chile.

11. We recognised at an early stage of our investigations that, in the abstract, a cardinal difference existed between these two contentions. An orographical boundary may be indeterminate if the individual summits along which it passes are not fully specified ; whereas a hydrographical line, from the moment that the basins are indicated, admits of delimitation upon the ground.

12. That the orographical and hydrographical lines should have been accepted as coincident over such a long section of the frontier as that which extends from the San Francisco Pass to the Perez Rosales Pass (with the exception of the basin of Lake Lacar), may not improbably have given rise to the expectation that the same result would be attained without difficulty in the more southern part of the continent, which at the date of the Treaty of 1881 was but imperfectly explored.

13. The explorations and surveys which have lately been carried out by Argentine and Chilian geographers have, however, demonstrated that the configuration of the Cordillera of the Andes between the latitudes of 41° south and 52° south, i.e., in the tract in which the divergences of opinion have mainly arisen, does not present the same continuities of elevation, and coincidences of orographical and hydrographical lines, which characterise the more temperate and better known section.

14. In the southern region the number of prominent peaks is greater, they

are more widely scattered, and transverse valleys through which rivers flow into the Pacific are numerous. The line of continental water-parting occasionally follows the high mountains, but frequently lies to the eastward of the highest summits of the Andes, and is often found at comparatively low elevations in the direction of the Argentine pampas.

15. In short, the orographical and hydrographical lines are frequently irreconcilable; neither fully conforms to the spirit of the Agreements which we are called upon to interpret. It has been made clear by the investigation carried out by our Technical Commission that the terms of the Treaty and Protocols are inapplicable to the geographical conditions of the country to which they refer. We are unanimous in considering the wording of the Agreements as ambiguous, and susceptible of the diverse and antagonistic interpretations placed upon them by the Representatives of the two Republics.

16. Confronted by these divergent contentions we have, after the most careful consideration, concluded that the question submitted to us is not simply that of deciding which of the two alternative lines is right or wrong, but rather to determine—within the limits defined by the extreme claims on both sides—the precise boundary-line which, in our opinion, would best interpret the intention of the diplomatic instruments submitted to our consideration.

17. We have abstained, therefore, from pronouncing judgment upon the respective contentions which have been laid before us with so much skill and earnestness, and we confine ourselves to the pronouncement of our opinions and recommendations on the delimitation of the boundary, adding that in our view the actual demarcation should be carried out in the presence of officers deputed for that purpose by the Arbitrating Power, in the ensuing summer season in South America.

18. There are four distinct subjects upon which we are called upon to make recommendations, viz. :—

1. The region of the San Francisco Pass in latitude $26^{\circ} 50' S.$, approximately.
2. The Lake Lacar basin, in latitude $40^{\circ} 10' S.$, approximately.
3. The region extending from the Perez Rosales Pass, in latitude $41^{\circ} S.$ approximately, to the vicinity of Lake Viedma.
4. The region of Last Hope Inlet to the fifty-second parallel of south latitude.

19. Our recommendations upon these four subjects are as follows * :—

THE SAN FRANCISCO PASS.

20. The initial point of the boundary shall be the pillar already erected on the San Francisco Pass.

From that pillar the boundary shall follow the water-parting which conducts it to the highest peak of the mountain mass, called Tres Cruces, in latitude $27^{\circ} 3' 45'' S.$; longitude $68^{\circ} 49' 5'' W.$

LAKE LACAR.

21. From the point of bifurcation of the two lines claimed as boundaries respectively by Chile and Argentina, in latitude $40^{\circ} 2' 0'' S.$, longitude $71^{\circ} 40' 36'' W.$, the boundary shall follow the local water-parting southwards by Cerro Perihueico to its southern termination in the valley of the River Huahum.

From that point it shall cross the river in longitude $71^{\circ} 40' 36'' W.$, and thenceforward shall follow the water-parting, leaving all the basin of the Huahum above that point, including Lake Lacar, to Argentina, and all below it to Chile, until it joins the boundary which has already been determined between the two Republics.

* All co-ordinate values expressed in terms of latitude and longitude are approximate only, and refer to the Maps attached to this Report. Altitudes quoted in the text are in metres. Where the boundary follows a river the "thalweg" determines the line.

PEREZ ROSALES PASS TO LAKE VIEDMA.

22. The southern termination of the boundary already agreed upon between the two Republics, north of Lake Nahuel Huapi, is the Perez Rosales Pass connecting Lago de Todos los Santos with Laguna Fria. Here a pillar has been erected.

From this pillar the boundary shall continue to follow the water-parting southward to the highest peak of Mount Tronador. Thence it shall continue to follow the water-parting which separates the basins of the Rivers Blanco and Leones (or Leon) on the Pacific side from the upper basin of the Manso and its tributary lakes above a point in longitude $71^{\circ} 52' W.$, where the general direction of the river course changes from north-west to south-west.

Crossing the river at that point, it shall continue to follow the water-parting dividing the basins of the Manso above the bend, and of the Puelo above Lago Inferior, from the basins of the lower courses of those rivers, until it touches a point midway between Lakes Puelo and Inferior, where it shall cross the River Puelo.

Thence it shall ascend to, and follow, the water-parting of the high snow-covered mountain mass dividing the basins of the Puelo above Lago Inferior, and of the Fetaleufu above a point in longitude $71^{\circ} 48' W.$ from the lower basins of the same rivers.

Crossing the Fetaleufu River at this point, it shall follow the lofty water-parting separating the upper basins of the Fetaleufu and of the Palena (or Carrenleufu or Corcovado) above a point in longitude $71^{\circ} 47' W.$, from the lower basins of the same rivers. This water-parting belongs to the Cordillera in which are situated Cerro Conico and Cerro Serrucho, and crosses the Cordon de las Tobas.

Crossing the Palena at this point, opposite the junction of the River Encuentro, it shall then follow the Encuentro along the course of its western branch to its source on the western slopes of Cerro Virgen. Ascending to that peak, it shall then follow the local water-parting southwards to the northern

shore of Lago General Paz at a point where the lake narrows, in longitude $71^{\circ} 41' 30''$ W.

The boundary shall then cross the Lake by the shortest line, and from the point where it touches the southern shore it shall follow the local water-parting southwards, which conducts it to the summit of the high mountain mass indicated by Cerro Botella Oeste (1890 m.), and from that peak shall descend to the Rio Pico by the shortest local water-parting.

Crossing that river at the foot of the water-parting, in longitude $71^{\circ} 49'$ W., it shall ascend again in a direction approximately south and continue to follow the high mountain water-parting separating the upper basin of the Rio Pico above the crossing from the lower basin of the same river, and from the entire basin of the Rio Frias, until it effects a junction with the continental water-parting about the position of Loma Baguales, in latitude $44^{\circ} 22'$ S., longitude $71^{\circ} 24'$ W.

From this point, it shall continue to follow the water-parting dividing the basins of the Frias and Aisen Rivers from that of the Senguerr until it reaches a point in latitude $45^{\circ} 44'$ S., longitude $71^{\circ} 50'$ W., called Cerro de la Galera in the map, which marks the head of an affluent flowing south-eastwards into the main stream of the Rio Simpson, or southern branch of the Aisen. It shall descend this affluent to its junction with the main stream, and from this junction shall follow the main stream upwards to its source under the mountain called Cerro Rojo (1790 m.) in the map. From the peak Cerro Rojo it shall pass by the local water-parting to the highest summit of the Cerro Ap Ywan (2310 m.).

From Cerro Ap Ywan it shall follow the local water-parting determined by the promontory which juts southwards into Lago Buenos Aires in longitude $71^{\circ} 46'$ W.

From the southern extremity of this headland the boundary shall pass in a straight line to the mouth of the largest channel of the River Jeinemeni, and thenceforward follow that river to a point in longitude $71^{\circ} 59'$ W., which marks the foot of the water-parting between its two affluents, the Zeballos and the Quisoco. From this point it shall follow this water-parting to the summit of the high Cordon Nevado, and shall continue along the water-parting of that

elevated cordon southwards, and thence follow the water-parting between the basins of the Tamango (or Chacabuco) and of the Gio, and ascend to the summit of a mountain known locally as Cerro Principio, in the Cordon Quebrado. From this peak it shall follow the water-parting which conducts it to the southern extremity of the headland jutting southward into Lago Pueyrredon (or Cochrane), in longitude $72^{\circ} 1' W.$

From this headland it shall cross the Lake passing direct to a point on the summit of the hill, in latitude $47^{\circ} 20' S.$, longitude $72^{\circ} 4' W.$, commanding the southern shore of the lake. From this summit it shall follow the lofty snow-covered water-parting, which conducts it to the highest peak of Mount San Lorenzo (or Cochrane, 3360 m). From Mount San Lorenzo it shall pass southward along the elevated water-parting dividing the basin of the River Salto on the west from that of the River San Lorenzo on the east, to the highest peak of the Cerro Tres Hermanos.

From this peak it shall follow the water-parting between the basin of the Upper Mayer on the east, above the point where that river changes its course from north-west to south-west, in latitude $48^{\circ} 12' S.$, and the basins of the Coligüe or Bravo River and of the Lower Mayer, below the point already specified, on the west, striking the north-eastern arm of Lago San Martin at the mouth of the Mayer River.

From this point it shall follow the median line of the Lake southwards as far as a point opposite the spur which terminates on the southern shore of the Lake in longitude $72^{\circ} 47' W.$, whence the boundary shall be drawn to the foot of this spur and ascend the local water-parting to Mount Fitzroy and thence to the continental water-parting to the north-west of Lago Viedma. Here the boundary is already determined between the two Republics.

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23. From the point of divergence of the two boundaries claimed by Chile and Argentina respectively in latitude $50^{\circ} 50' S.$, the boundary shall follow the high crests of the Sierra Baguales to the southern spur which leads it to the

source of the Zanja Honda stream. Thence it shall follow that stream until it reaches existing Settlements. From this point it shall be carried southwards, having regard, as far as possible, to existing claims, crossing the River Vizcachas and ascending to the northern peak of Mount Cazador (948 m.). It shall then follow the crest-line of the Cerro Cazador southwards, and the southern spur which touches the Guillermo stream in longitude $72^{\circ} 17' 30''$ W. Crossing this stream, it shall ascend the spur which conducts it to the point marked 650 m. on the Map. This point is on the continental water-parting, which the boundary shall follow to its junction with the fifty-second parallel of south latitude.

24. All which we beg humbly to submit for Your Majesty's gracious consideration.

Signed, sealed, and delivered at the Foreign Office, in London, this nineteenth day of November, one thousand nine hundred and two.

(L.S.) MACNAGHTEN,

*Lord of Appeal in Ordinary, and a Member of
Your Majesty's Most Honourable Privy Council.*

(L.S.) JOHN C. ARDAGH,

*Major-General, and a Member of Council of the
Royal Geographical Society.*

(L.S.) T. HUNGERFORD HOLDICH,

*Colonel of the Royal Engineers, and a Vice-President
of the Royal Geographical Society.*

E. H. HILLS,

*Major of the Royal Engineers, Head of the
Topographical Section of the Intelligence Division.
Secretary to the Arbitration Tribunal.*

SCHEDULE OF MAPS.

1. SAN FRANCISCO PASS.
2. LAKE LACAR.
3. PEREZ ROSALES TO LAKE BUENOS AIRES.
4. LAKE BUENOS AIRES TO MOUNT FITZROY.
5. LAST HOPE INLET.

